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DOCTORAL GRADUATES IN EDUCATION. AN INQUIRY INTO THEIR MOTIVES, ASPIRATIONS, AND PERCEPTIONS OF THE PROGRAM.
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*DOCTORAL DEGREES, *EDUCATION MAJORS, ADVANCED EDUCATION, SCHOOL ADMINISTRATION, GUIDANCE COUNSELING, *PROFESSIONAL EDUCATION, *SURVEYS, NATIONAL SURVEYS, STATISTICAL SURVEYS, COMPARATIVE ANALYSIS, STATISTICAL ANALYSIS, QUESTIONNAIRES, INDIVIDUAL CHARACTERISTICS, *CAREER CHOICE, PERSONAL INTERESTS, ASPIRATION, BACKGROUND, BLOOMINGTON, INDIANA

INDIVIDUALS RECEIVING DOCTORATES IN THE FIELD OF PROFESSIONAL EDUCATION IN THE UNITED STATES DURING THE ACADEMIC YEAR 1963-64 WERE SURVEYED AND COMPARED WITH A COMPARABLE SAMPLE OF RESPONDENTS (SURVEYED EARLIER) WHO HAD RECEIVED THEIR DEGREES BETWEEN 1956 AND 1958. CERTAIN SUBGROUPS WITHIN BOTH SAMPLES WERE COMPARED ALSO TO GATHER INFORMATION ON SUCH VARIABLES AS SEX, DEGREE, AND MAJOR FIELD. SURVEY PROCEDURES USED WITH THE 1963-64 POPULATION EMPLOYED A QUESTIONNAIRE WITH SEMISTRUCTURED RESPONSE ALTERNATIVES. RESPONSES FROM 2,067 QUESTIONNAIRES WERE COMPILED RELATIVE TO THE FOLLOWING--(1) PERSONAL AND SOCIOLOGICAL SAMPLE CHARACTERISTICS, (2) MOTIVES FOR ENTERING THE DOCTORAL PROGRAM IN EDUCATION, (3) PERCEPTION AND EVALUATION OF INDIVIDUAL EXPERIENCES DURING THE DOCTORAL PROGRAM, AND (4) CURRENT POSITIONS AND PERSONAL ASPIRATIONS. IN ADDITION, OTHER RESPONSE DATA WERE COMPARED WITH INFORMATION OBTAINED DURING THE EARLIER SURVEY, INCLUDING--(1) DEGREES, ED.D. VERSUS PH.D., (2) AGE, OLDER VERSUS YOUNGER DOCTORAL GRADUATES, (3) LENGTH OF SPECIFIC DOCTORAL PROGRAMS, (4) MAJOR FIELD, (5) COMMUNITY BACKGROUND, AND (6) SIZE OF SPECIFIC PROGRAMS. IT WAS FOUND THAT SCHOOL ADMINISTRATORS DOMINATED THE 1963-64 SAMPLE WITH A TOTAL OF ABOUT 20 PERCENT. THE FIELD OF GUIDANCE AND COUNSELING WAS FOUND TO BE A DISTANT SECOND CATEGORY WITH ONLY ABOUT 8 PERCENT OF THE TOTAL SAMPLE. (JH)

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DOCTORAL GRADUATES IN EDUCATION
An Inquiry Into Their Motives, Aspirations, and Perceptions of the Program

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I - THE PROBLEM

There is a growing recognition of the crucial role of public education in the future of the country. Along with this recognition there has been a growing concern by the public about any individuals or groups that influence the programs and policies of the schools. There is probably no single group that has more to say about the direction that public education takes than professional educators--especially those having the doctoral degree in education. These are the individuals who operate the teacher-training programs, who perform the research in the areas of teaching and learning, who administer education programs at all levels, and who counsel today's youth. The success of the nation's educational system is in no small measure in the hands of these professionals holding the doctoral degree.

This group of education leaders has not been the object of extensive research. Yet, any group playing such a crucial role should be subject to very close scrutiny. Means should be sought to attract to the field only the most capable individuals, and the utmost care should be taken to see that their educational programs are of a kind wherein they may adequately prepare themselves for their responsibilities.

As far as this writer knows, only one investigation has been undertaken of doctoral programs and degree recipients on a large scale in the field of education. Early in 1958, the Committee on Studies of the American Association of Colleges for Teacher Education approved a study of the doctorate in education. The proposal, conceived by the late B. L. Dodds, then Dean of the College of Education, University of Illinois, called for an analysis of conditions affecting the pursuit of the degree. Inplementation of the study was undertaken by the Subcommittee on Faculty Personnel and took the form of a questionnaire study of (1) the institutions conferring the doctorates, and (2) all individuals receiving the doctorate between September 1956 and September 1958 (Brown and Slater, 1960)

Results of the initial investigation were reported out in a two-volume series published by the AACTE and entitled the Doctorate in Education; Volume I being devoted to an analysis of the graduates, and Volume II to the institutions (Moore, Russell, and Ferguson, 1960). A third volume resulted from a two-day conference, sponsored by the Carnegie Foundation, during which representatives of the participating institutions discussed the results and implications of the studies (Yauch, 1960). In 1963, a five-year follow-up of the graduates was conducted seeking data relative to their abilities, professional aspirations, and job satisfactions (Ludlow, Sanderson, and Pugh, 1964).

The motivation for the 1958 study of the doctorate in education stemmed from a growing concern for an adequate supply of teachers and professional workers at this level. It was believed that a careful study of the factors and conditions surrounding the pursuit of the doctoral degree would bring to light some of the more critical features of the process and permit the formulation of plans aimed toward their control.

The timeliness and relevance of the 1958 study are suggested by the fact that the publications resulting from the study were greeted with an extensive circulation, and the ensuing conference sessions were marked by excellent attendance and an apparent high degree of interest.

The original concerns of the AACTE were proper and timely in the past decade. A similar concern about the quality and the adequacy of the supply of doctoral graduates is justified at this time. Each year of this past decade is expected to bring a new high in total enrollments in the institutions of higher education in the United States. The quality of American education at every level is being increasingly scrutinized by American society. The education profession should itself participate in this scrutiny.

It is hoped that this study has produced data upon which evaluative statements can be made both by the present writer and educational leaders in more focal positions with respect to doctoral programs in education.

II - OBJECTIVES

The objectives of this study are: to inquire into that group of individuals receiving the doctorate in the field of professional education in the United States during the year 1963-1964; and to make comparisons between this group and one some six years earlier.

Specifically, the study investigates doctoral recipients with respect to (a) their personal and sociological characteristics, (b) their motives in entering the doctoral program, (c) their perceptions and evaluations of their experiences during the program, and (d) their present professional aspirations. Within each of these four categories, additional questions of interest may be posed, namely:

(a) Personal and sociological characteristics.

- (1) What are their family backgrounds?
- (2) What are their education and vocational backgrounds?
- (3) What are their ages at the completion of the degree program?
- (4) What are their community backgrounds?

(b) Motives for entering the doctoral program in education.

- (1) When did they choose the doctorate as an educational and/or professional objective?
- (2) When did they decide to begin this program?
- (3) What were the special and immediate factors which influenced their decision to enter the program?
- (4) What were the long-range factors in this decision?
- (5) Who were the most influential individuals in this decision?

(c)Perceptions of their experiences of their doctoral program.

(1) What are their general evaluations of their doctoral program?

(2) What are their attitudes toward specific, common aspects of the doctoral program? (e.g., language requirements, dissertation, qualifying examinations, orals, research tools, etc.)

(3) What are their perceptions as to the general quality of students in the program?

(4) What was the length of their doctoral program?

(5) What important financial problems occurred during their program?

(6) What is their perception of their relations with doctoral students and faculty in other fields?

(7) How has their doctoral program influenced their personal attitudes toward their profession?

(8) What were the major hindrances to the completion of their program?

(d) Present professional aspirations.

(1) What are their present positions?

(2) What are their present professional goals?

(3) What are the present sources of satisfaction and dissatisfaction in their present employment?

(4) What is their evaluation of the extent to which their doctoral program has contributed to the achievement of their present professional goals?

A second objective of the study was to compare the responses of this group of respondents with those of the earlier sample. Thus, direct comparison will be made of the data on the present sample with those data of the 1956- 1958 sample. This necissitated retaining certain features of the earlier instrument; although extensive revision to include new dimensions was undertaken. As indicated in the problem statement, it is reasonable to assume a number of significant differences between the present sample and the earlier one.

A final objective was to compare the responses of certain subgroups within the sample. Changes are occurring in programs, recruiting practices, and kinds of students attracted to the program. The profession should become aware of these changes. For example, it is reasonable to expect systematic differences in the kinds of people that elect different major fields, that select different institutions and that entertain different professional goals. It would be expected that the Ph.D's and Ed.D's in the same institutions would perceive their experiences differently. It would also be expected that those from rural backgrounds, as opposed to those from metropolitan areas, might have different kinds of professional objectives and select different kinds of institutions. It is reasonable to expect that the older candidates would tend to differ from the younger in their perceptions of the relationship of the degree to their professional goals. It is also to be expected that those institutions which produce many graduates, as opposed to those which produce few, would attract different kinds of students, would have different effects on student perceptions of the program, and would produce students with quite different professional aspirations. Hence, six grouping arrangements were selected, herein called independent variables, for purpose of subgroup comparisons. These variables were selected on the basis of findings of the earlier study and consist of (1) age, (2) degree, (3) program length, (4) major field, (5) community background, and (6) size of program.

III - RELATED LITERATURE

Related research to this particular inquiry is indeed sparse and incomplete. However, it would appear that there are three kinds of related studies.

First of all, there are certain unpublished dissertations by graduates (mostly doctoral) of schools of education of specific institutions. Examples of this are: Lloyd Lee Garrison (1951) completed a Follow-up Study of Doctoral Graduates in Education at the University of Missouri. Raymond J. Lokers (1958) completed An Evaluation of the Doctoral Program in Education at the University in Terms of Fulfillment of the Expectations of the Recipients and of the Expectations of the University. Donald M. Sharpe (1949) completed a Follow-up Study of Former Graduate Students of the College of Education at the University of Illinois. Gerald H. Doty (1962) completed An Appraisal of the Program Leading to the Doctorate of Education at Indiana University, based on a Follow-up Study of its Graduates. Doubtless each of these was of exceptional value to the particular institution which was involved in the study. However, it is quite apparent that these and similar studies, though quite important and relevant to particular institutions, lack generality and comprehensiveness that is hoped for in a national study involving all institutions.

A second type of related research is that which makes a study of graduate education generally, but tends to treat the doctorate in education as a subgroup of the total sample of doctorates. Oliver C. Carmichael's (3) volume on Graduate Education is an example of this type of literature. Bernard Berelson's (2) volume on Graduate Education in the United States is another example. Berelson's volume is of special interest because of the many individuals contacted in the study, particularly the partial sample of 1957 recipients of the doctorate in the United States. Dr. Lindsay R. Harmon (3), utilizing existing files of all doctoral graduates in the United States from 1936 to the present, maintained currently by the Office of Scientific Personnel of the National Academy of Science—National Research Council, has made special studies of the High School Backgrounds of Science

Doctorates with comparative data on those receiving the doctorate in the field of education. Again, these volumes and others of like nature, are only of limited value to this inquiry in that the treatment given to the doctorate in education is only incidental to other concerns.

A third type of study is that which seeks to investigate those who receive the doctorate of education throughout the United States. Only one such study seems to have been done. This is the 1958 study conducted under the auspices of the AACTE and mentioned in the previous section.

As in the case of many such studies, however, more questions were raised than answered by the findings, especially questions about the graduates themselves. The following represent significant findings of the study of the doctorate in education along with questions raised by the findings.

(a) The production of the Ed.D.s was almost double that of the Ph.D.s. It has long been a somewhat common assumption that the Ed.D. is the practitioner's degree. When we look at the data, we find that whereas two-thirds of the total group took the practitioner's degree, only about 40 percent seemed to be employed as practitioners. Seemingly the distinction between the two degrees has become obscured. What are the implications of this? Are the two degrees no longer serving their original functions?

(b) Notwithstanding the fact that women dominate men numerically in the two lower levels of American education, the ratio of men to women receiving doctoral degrees in the field of education is sharply reversed, with men receiving four times as many degrees as women. Do women represent an unexploited source of doctoral candidates? The question is even more relevant when the fact is recognized that women tend to outrank men accademically among undergraduate education majors.

(c) The sample can be characterized sociologically as strongly mobile in an upward direction. Almost all have received more education than their fathers. Interestingly, both the large urban area and the small villages and rural areas tended to be more productive than cities and towns of an intermediate size. It is well known from other sources that there is at present a strong tendency for population to move from the small villages and rural areas to more urban locations. In what way will this pronounced trend influence the production of doctorates in education?

(d) The median age of graduates was between 38 and 39 years. In spite of the fact that one would expect graduates receiving the doctorate in education to be somewhat older than in certain other fields, the median age seems unduly high. This is a subject of some concern among educators. There seems to be common agreement that schools should seek younger recruits who would have longer professional careers. Have these schools been successful in recruiting younger people for their doctoral programs during the past six years?

(e) A related finding indicated that the individuals in the sample considered entering the doctoral program rather late in their vocational-educational career, most often during the master's program. It seems quite clear from this that much greater efforts are needed in early indentification and counseling of potential doctoral candidates.

(f) Professional colleagues and former professors, especially the latter, were the most influential forces in the decision to enter the doctoral program. It would appear however, that a multiplicity of motives is involved in the decision to seek the doctorate. Further research is needed to explicate more fully the motives for entering the doctoral program.

(g) The "GI Bill" was the most common single financial resource used by the graduates, more than 40 percent of the respondents including it in their list of resources. With the assumption that this is no longer true, the question is raised as to how present doctoral students are financing their programs.

(h) Fewer than one-half were employed as teachers in their last position prior to receipt of the degree. For many there was a definite movement from teaching to nonteaching positions throughout their vocational career. Seemingly a process such as this is not uncommon. Good classroom teaching is rewarded by a nonteaching position, often public school administration, supervision, or guidance work. Outstanding performance in these positions leads to recruitment into doctoral programs. Success in the doctoral program results frequently in appointment to college teaching and research positions.

(i) The two most significant factors in the choice of a doctoral institution were: (1) reputation of individual staff members, and (2) proximity of the university. Are these adequate reasons for making such important choices?

(j) The data show that 35.4 percent of the respondents found it necessary to discontinue temporarily the program at some point. An additional 30.5 percent seriously considered that step. The causes most often cited were work pressures and financial problems, two closely related features. While it is not surprising that students have serious work and financial problems, the magnitude (with two-thirds in the sample seriously affected) of the problem is important. The factors contributing to the problem are deserving of the most careful analysis.

(k) The median length of the total program was five years, but the modal length was 99 or more months. The study indicated that numerous institutional and personal variables operated to extend the length of the doctoral program. What are the reasons for such unduly extended doctoral programs? What can and should be done to enable and encourage effective doctoral programs to be concluded in shorter periods of time?

(l) Approximately one-half of the graduates were teaching during the academic year of 1958 - 1959. The remainder were largely engaged in administration, personnel work or instructional service. One-fourth of the graduates were not involved in teacher education. Does this represent optimun distribution of graduates according to professional needs?

Several questions follow these observations. Will there be, as the decade continues, an adequate number of teachers and administrators to effectively serve the needs of higher education? Who are the individuals who will be receiving the doctorate in education? What kinds of motives led them to enter the program? How do they feel about the quality and general effectiveness of their doctoral programs? Are the doctoral graduates of the recent past more satisfied with the institutions granting their degrees than those in the study of 1958. What is the distribution of the graduates according to professional needs? What are the long-range professional aspirations of those who have so recently been awarded the doctorate in education? The absence of available and accurate answers to these and related questions tends to underline the need for continuing longitudinal studies in the same general areas of consideration dealt with in the descriptive survey of ACCTE in 1958.

Moore, Russel, and Ferguson (1960) were assigned the task of collecting the data and writing the report for the institutional phase of An Inquiry Into Conditions Affecting Pursuit of the Doctoral Degree in the Field of Education. This special responsibility had been assigned by the AACTE to the School of Education, University of Denver, of which all of the authors were staff members. In addition to the general data made available by doctoral graduates an extensive Administrator's questionnaire was sent to 81 administrators and a supplementary questionnaire to 289 administrators. An 89 percent response was received to the Administrator's questionnaire and a 99 percent response to the supplementary questionnaire.

Because of the diversity of institutional settings in which doctoral programs in education have been organized, it proved difficult to formulate highly specific conclusions on the strength of data involved in this study. The very nature of American graduate education has made it impractical, if not impossible, to be highly specific in deriving standardization or uniformity. The investigators felt that progress in doctoral education has been made, and will continue to be made, on the strength of diversity and institutional individualism as much as through efforts to derive uniform patterns. However certain conclusions are suggested by the authors to the following questions:

1. Are Ed.D. and Ph.D. programs characterized more by similarities or differences? In some institutions the degrees were identical for all practical purposes and by the admission of the respondents. Other institutions have made great effort to distinguish between the two degrees on the premise that they should serve different functions. Still others have continued to use one degree or the other to satisfy all needs in their doctoral programs in education.

Efforts on the part of some institutions to maintain basic differences between the two degrees while other universities perceive them as practically identical, or while some institutions offer one degree to the exclusion of the other, will continue to create a measure of confusion in the profession.

The effort to differentiate requirements for the two degrees on the basis that the Ph.D. degree serves research and scholarly purposes and the Ed.D. degree serves practitioner or professional purposes may never gain wide acceptance. Perhaps this matter will be resolved by an emergence of new thinking which makes use of less confusing terms than "research-scholar" and "practitioner-professional". It is possible that the profession will come to recognize that both degrees have emerged as generic terms to cover ever-widening spheres, the Ed.D. degree applying to areas almost as remote from the field of education as the Ph.D. degree has come to apply to areas quite removed from philosophy.

For the time being, it seems wise to conclude that either degree will best be understood through its institutional association, rather than from any over-all aim or national statement of divergent functions.

2. Should programs be highly structured and prescriptive or completely flexible? From analyses in this study, higher production seemed to relate to institutions and programs with at least an optimum degree of flexibility. Probably few truly qualified and worthy doctoral aspirants would be drawn to any program with a reputation for over-permissiveness; however, the opposite extreme has no great enticement either. A program characterized by over-prescription, extreme structuring, and above all, rigidity almost for the sake of rigidity may not only squelch production but may hamper severely educational progress and the dynamism which should characterize doctoral education.

3. Does the absence of a cognate area or a minimum number of course hours outside the field of education lead to overspecialization? Whether the absence of such course work is considered desirable or not, many institutions in this study

reported that no set requirement was obtained in this regard. Programming that entails no quarantee of some form of interdepartmental experience for doctoral candidates in education may be producing graduates who are narrowly specialized, overly professionalized, and academically isolated in a profession characterized by a high degree of interpersonal and interdisciplinary relationships.

4. What curricular elements might be expected to undergo modifications? The foreign language requirement has been one of the existing curricular elements of doctoral study about which a few institutions have revised their thinking. Instead of holding irrevocably to the foreign language requirements, even for the Ph.D. degree, these institutions have either eliminated it in deference to what they call more functional tool requirements or have placed foreign language on an equal basis with other electives to be taken as needed by the individual candidates.

The same type of change in attitude has occurred in relation to the formal dissertation requirement in some universities. Where this requirement was inflexible, consumed an ill-proportioned amount of time, and accounted for a major block of credit hours, changes in some programs have taken place. The trend seems to be toward flexibility in this requirement with the hope of making the experience more beneficial to the candidate.

It appears that current emphasis on interdepartmental approaches to graduate education, intensified efforts to make core requirements more functional, and attempts to make way for more practicum and field experiences all induce a searching re-evaluation of traditional curricular elements, which have been relatively standard for over a half century.

4. Should doctoral programs in education be under the control of the graduate college or the college of education? The data does not make possible a direct answer. However a careful assessment of several factors led to the conclusion

that control by the college of education is generally preferable.

6. Should an institution set a maximum age limitation in regard to the admission of doctoral students? Research is not available to justify any sweeping national change in this regard. However, the practice of admitting a great many persons for whom the doctorate will mean, because of their advanced age, little or nothing vocationally is a dubious one in light of restricted resources available to doctoral candidates in education. It might be well for all institutions to consider ways of concentrating on the younger men and women whose careers in the profession are essentially ahead of them.

7. Is there a need for more institutions to think in terms of selective recruitment? The consensus of thinking of the authors was very strongly in the affirmative. The lack of recruitment awareness leaves the admission process largely to chance amd almost devoid of preadmission selection. Closely aligned with the question of recruitment is the question of program expansion. The study did not reveal the reason or reasons why some institutions with a seemingly adequate capacity for sizable production, and with programs of long standing, were among the group of low-producing institutions.

8. What effect do institutional controls have upon the time spent by each candidate in his program from initial admission to graduation? Institutional control-factors that seem to relate to the expeditious movement of candidates through their programs include: (a) the adequacy of initial counseling with emphasis on the clarification of goal determination at the outset; (b) the early elevation of doctoral students to at least a preliminary candidacy so that they realize they are moving seriously toward their goal; (c) the availability of various forms of financial assistance; (d) adequate guidance during the selection of a

dissertation topic that can be dealt with in realistic time limits; (e) some form of extra financial assistance in accomplishing the dissertation; and (f) certainly the continued attention and encouragement by the faculty throughout the program so that there is a steady consciousness by the candidate of the advantages inherent in the early completion of his program. Any form of planning to avoid a continued drift throughout the program would be all to the good.

The publication of Volume I—The Graduates and Volume II— The Institutions provided the basis for discussion at the Conference on the Doctorate in Education, held in Chicago, Illinois, May 2-4, 1960. Wilber Yauch served as editor of the deliberations of the conference; the results of which appeared as Volume III—Conference Report (Yauch, 1960).

In each of the discussion groups the members either hinted at or directly suggested that certain courses of action be taken. Certain research studies were suggested, the results of which would provide guidance for institutions as they develop new programs or revise and improve present ones. The following were among those frequently mentioned:

1. A study of the actual cost, to the student and to the university, of each doctoral degree granted. Many institutions are currently planning to introduce doctoral programs without any clear-cut information of what this might mean for their operating budgets.

2. A study to determine the exact nature and the indices of quality itself. No one underestimates the difficulty of trying to spell out quality goals and the means for evaluating them. However it is felt that a case study method of the practices of institutions might prove rewarding.

3. A study to determine which areas of concentration are already in oversupply and which are in critical shortage. It was suggested that, if facts were

at hand, institutions could achieve greater efficiency in guiding new candidates into the areas of critical shortage and dissuading them from overpopulating the the popular fields.

4. A study to determine the effect of institutional size on student-faculty relations. While no one directly suggested that the size of an institution necessarily interfered with student-faculty relations, there was a haunting fear that it is possible for a university to get so large as to become unwieldy in its more intimate contacts.

5. A follow-up study of the present report. It was agreed that it should be repeated periodically, perhaps once every five to ten years. Further comparable studies would provide information about the trends in doctoral study, in addition to giving evidence of the extent to which present attempts to improve programs were bearing fruit.

One of the special concerns of the conference was the hope that new doctoral programs now being planned would focus on quality and not succumb to any temptation to develop "crash programs". To that end, suggestions were offered as guides to the development of quality programs:

1. The establishment of criteria for the inauguration of new programs. Although those present held a dim view of standards as such, it was recognized that some "guidelines" would need to be created to give new institutions some idea of what constituted high quality. It was further suggested that those considering new programs give serious attention to the need for launching new programs only after a painstaking study of the competencies of their present staff in those areas in which critical need had been established.

2. The calling of regional conferences to plan new programs. Concern was constantly voiced over the possibility of too many institutions rushing headlong

into new programs without consideration of the need, with consequent duplication of effort and unwarranted competition.

Ludlow, Sanderson and Pugh collaborated in a further investigation of persons receiving the Doctorate in the Field of Education in the United States for the year 1958. The inquiry sought to gather data concerning their abilities, professional motivations, and job satisfactions. Among the findings of the investigation were:

1. The scores of the Ph.D.s were apparently higher than those of the Ed.D.s on the three criterion scores (i.e., intelligence test scores, normalized rank in high school graduating class, and high school mathematics-science GPA).

2. Through the questionnaire technique it was found that the majority, 95 percent, of the 1958 doctorates in education were directly involved with the profession of education in 1963. Only five percent were in other classifications of employment such as business, industry, government, and private practice.

3. Currently 64 percent of the respondents were engaged in college teaching.

4. Eighty percent of the respondents set forth as their ultimate professional objectives some kind of college or university work. Specifically, 48 percent of the respondents aspire to college teaching.

5. After five years of post-doctoral employment promotions on the job have been received by 38 percent of the respondents.

6. Sixty-four percent of the respondents have made at least one geographical move since 1958. It was found that 23 percent had made more than one position relocation.

7. A favorable attitude exists among the majority of doctorates in respect to three types of professional satisfaction, namely, economics, position, and advancement.

8. Concerning the allocation of faculty load, it was found that some form of administration is the most frequently practiced professional duty. This activity is followed in order by teaching, counseling, and research.

9. There had been a marked increase in annual salaries during the five-year period studied. Sixty-four percent of the respondents in 1963 were making $10,000 or more on a calendar year basis. Ten percent were making more than $15,000. In 1958 the corresponding percentages were nine and one.

Among the conclusions reached in this investigation were:

1. Present concern over superiority of one degree or the other is not fully warranted. On the three criteria of ability, Ed.D.s and Ph.D.s differ significantly on only one, mathematics-science GPA. There are no significant differences in respect to the factors of intelligence and ran in high school class.

2. Feelings concerning the imagined superiority of the doctoral incumbents in certain types of position within the profession of education are indeed questionable. On the three measures of ability and achievement, position holders did not differ on any of the three criteria.

3. Present speculation as to the superiority of doctoral recipients in certain major subject areas is not entirely supported.

4. Certain classes and types of colleges and universities do not attract those graduates with greater ability and achievement.

5. There is ample evidence to support the statement that doctorates of education are staying within the profession. Other areas outside education are not attracting doctoral holders to any significant extent.

6. To be employed in a college or university is the goal of the majority of education doctorates.

7. The group is quite mobile. Frequent position relocation is a means utilized in the attainment of certain goals or objectives.

8. Advanced graduate education students appear to enjoy considerably higher earning power than most college officials have thought.

9. The doctorate has been very influential in respect to the enhancement of status role. It has influenced peers, colleagues, and superiors in a way perceived as favorable by the degree recipients.

The reasons for spelling out in such detail the results of the four-volume series are that the findings of these studies in a large measure guided the present study in the particular direction taken, the findings will represent a point of departure in the disucssion of the results of the present study, and the studies represent the only closely related literature.

It is clear, however, from the kinds of studies which have been done that many more questions have been raised than have been answered. But to suggest that the present study attempts to supply answers to the unanswered questions of the previous study would ignore the dynamic character of the profession. It is entirely possible that the questions raised by the earlier study are not as relevant today as they were six years ago. Hence, to identify more currently viable questions is considered to be both a desirable and defensible outcome of this study. Quite obviously, however, more substantial kinds of outcomes are sought as well.

IV - PROCEDURES

The population to be investigated was defined as all of those individuals receiving a doctoral degree (Ph.D. or Ed.D.) in education between September 1, 1963 and August 31, 1964. Research method consisted of a survey procedure employing a questionnaire with semi-structured responses alternatives designed in part to faciliate IBM codings.

In order to assure the possibility of actually surveying the sample as defined it was necessary to identify all institutions awarding doctoral degrees in education to gain their cooperation in supplying names and addresses of degree recipients during the time period specified. To accomplish this the cooperation of American Association of Colleges for Teacher Education was solicited. This office was able to identify 120 members and non-member institutions that had awarded doctoral degrees in the past or had indicated plans to do so. Member institutions of the AACTE were contacted by letter dated September 15, 1964 and addressed to the Chief Institutional Representative. Non-member institutions were contacted by letter to either the Dean of the school or department of education, or the graduate Dean. Lists of names and addresses of graduates were requested. Follow-ups were made by phone until responses were obtained from all institutions.

The lists of names and addresses of graduates were forwarded to the investigator and the questionnaires were sent out on November 20, 1964. The initial package included the questionnaires together with a stamped return envelope and a cover letter on AACTE letterhead. A follow-up letter was sent to all of those not yet responding on November 28, 1964. A second follow-up complete with a new questionnaire was mailed on December 11, 1964, and a final letter was sent out January 9, 1965.

Coding of the questionnaires involved two stages, completion of the key and the actual coding. The key could not be entirely completed prior to the data for two reasons. First, two of the independent variables, age and length of program obviously could not be predicted in advance. Secondly, the questionnaire itself was constructed in part to encourage free responses to many of the items, and equally obviously, these could not be predicted in advance.

The Coding Procedure.

The questionnaire was designed to minimize the amount of coding required prior to card punching. There were, however, three aspects of the instrument which required the full attention of the coders. The independent variables, previously mentioned, constituted the first of these.

The second had to do with the large number of items which encouraged the respondent to "write in" his own responses following a series of predetermined categories, if such was necessary to describe his peculiar circumstances. These "other-specify" responses for each item were listed from a group of 300 questionnaires. If the total number of responses exceeded 5 percent, a classification system was designed into which the responses could be grouped. Sufficient categories were added to reduce the residual below 5 percent.

The third dimension of the questionnaire requiring attention of the coder were the open-ended items (e.g., father's occupation, undergraduate major, present position, etc.). For these items a coding system was designed prior to the coding fully decribed for the coder.

Five IBM cards were required to code all information. Coding teams specialized in the coding of a single card. Efforts to insure accurate and reliable coding included independent checks by the coders and supervision on questionnaires coded by the others. Independent checks were run on every questionnaire in the beginning then reduced over a period of time to approximately one in ten.[1]

The questionnaires were coded for IBM tabulation by a group of ten undergraduate students operating in five teams of two persons each. Each pair was responsible for coding a specific portion of the questionnaire. All coding was done under the supervision of the investigator and a graduate assistant who were responsible for all decisions where judgement was required. The coding operation began on March 6 and required five Saturdays. March 6 also served as a cut off date for acceptance of returns.

Card punching and verifying was also done by a group of students. This phase of the study constituted one of the major obstacles in that adequately trained operators were not available. The trained students proved both slow and inaccurate. Much re-punching and correcting were required, and nearly four months were consummed in the process. Tabulation and statistical analyses were done by the Indiana University Data Processing Service.

The Independent Variables.

Six variables were selected from the earlier study as being of potential relevance and significance for the present study. The variables were:

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[1] Copies of the actual key can be obtained from the author upon request.

1. Major versus Minor Producing Institutions - Operationally this variable was defined by distributing all institutions in the order of the number of graduates contributed to the sample. The midpoint (median) of the distribution was then located. Those institutions above the median were considered major producers, and as a group contributed 50 percent of the sample. Those below the median were designated minor producers and also contributed 50 percent of the sample. Of all 108 institutions, then, 21 were considered major producers and 87 were considered minor producers. (See Appendix for identification of institutions.)
2. Major Field - In the actual coding fine distinctions were made in major field. For example, guidance, counseling, and guidance and counseling were separately coded into three categories. Major fields, as an independent variable, were more grossly defined. All three of the above examples were re-grouped into a single category. In the fine grouping procedure, 86 categories of major field were used to account for all fields. Under the gross groupings arrangement 15 categories accounted for 85.7 percent of the respondents. (See Appendix B for classification system)
3. Length of Program - Longer versus Shorter Length Programs. It was deemed desirable from the standpoint of facilitating data tabulation to pre-define all independent variables. For this variable, 300 questionnaires were selected in no order prior to coding, and a distribution of program lengths was constructed. The distribution was divided into quintiles. The top two quintile groups were designated as longer programs and the bottom two quintiles as shorter programs, omitting the middle 20 percent. The rationale for this procedure, and

the hope, was that the 300 questionnaires represented a sufficiently random sample of the total that the distribution would not be seriously affected by inclusion of the remaining questionnaires.

4. Age of Graduate - Older versus Younger Graduates. The procedure for operationalizing this variable was exactly the same as for Length of Program except that age was substituted as the distributional variable.
5. Community Origins - Rural Village versus Small Town versus Small City versus Large City. These categories were selected by the respondents.
6. Degree - Ed.D. versus Ph.D. Categorization according to this variable was accomplished by the respondents in response to an item requesting this information.

V - ANALYSIS AND RESULTS

For the analysis of data each item in the questionnaire was considered a variable. The data were run with each questionnaire variable against every independent variable. Chi-squares were then computed for each distribution. In all there were 264 questionnaire variables over 6 dependent variables resulting in a total of 264 X 6 distributions. This procedure resulted in a large number of unmeaningful chi-squares, but it was found to be easier to compute them than to amend the program to omit them. Most further analyses were performed on a desk calculator.

In reporting and interpreting the results the procedure will be to report the results for a given item for the entire group. Then, if the results as distributed across the six independent variables were meaningful, these also are reported. The reader should assume that if no results were reported for a given item with respect to a given independent variable, that the results were not meaningful. In addition, much of the data from this sample is comparable to similar data from the 1956-1958 sample. Where ever interesting changes occur, they are noted.

The structure of this section of the report is according to the previously described objectives of the study. That is, the study was intended to gather data relevant to 1) personal-social characteristics of the sample, 2) the motives for entering doctoral study, 3) the program perceptions and evaluations, and 4) their present professional aspirations. Each of these will constitute a section of this chapter.

Characteristics of the Sample.

In the 1956 to 1958 study, production figures indicated that approximately 3260 persons received doctoral degrees in education. This would suggest around 1600 graduates per year. The total production for the single year from September 1, 1963 to August 31, 1964 was 2487, an increase of approximately 50 percent. In addition the number of institutions granting degrees increased from 92 to 108.

The response to the questionnaire can only be described as excellent. The questionnaire was lengthy and time consuming, but apparently there was a readiness on the part of these recent graduates to give their reactions to their experiences in the doctoral program. The returns are presented in Table 1, and, as may be seen, the total return is 83.5 percent. The returns can be considered even more complete by discounting those individuals who could not be contacted because of inadequate address. The return can then be described as 87.0 percent of those contacted.

While in general the response was excellent, when considered institution by institution, there was significant variation in the return. Table 2 shows the returns by institution listed in order of reports of production.

TABLE I - SAMPLE AND RESPONSE

		Percent of Total Sample
Individuals with no addresses	14	.5
Questionnaires sent out	2474	99.5
Questionnaires returned undelivered	99	4.0
Refused to participate	16	.6
Total useable returns	2067	83.1
Total Sample	2488	

With respect to the figures in Table 2, two qualifications should be noted. First, it is entirely possible that institutions granting doctoral degrees in education could have been overlooked in spite of the careful survey conducted through the AACTE. It is extremely unlikely, however, that this would effect sample size appreciably. Secondly, it is likely that some of the institutional lists of graduates are not completely accurate. In the 1956 - 1958 survey of doctoral recipients by the ACCTE, institutions were requested to submit, independently, lists of graduates and number of graduates, as a part of two phases of the total study. Comparison of the production tables resulting from each indicates that it is rare indeed when the figures agree, and an occasional radical discrepancy occurs.[1] Therefore, these figures in Table 2 should be considered not as absolutes,but as estimates derived through procedures which urged as much care as possible on the part of the institutions reporting their graduates.

Of the twenty-one institutions designated as major producers only one fell

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[1] See Table 1, Pages 5- 7 and Table 9, Pages 14 - 16 in Brown & Slater (1960) and Moore, Russel, and Ferguson (1960), respectively.

TABLE 2 - PRODUCTION OF DOCTORAL GRADUATES: BY INSTITUTION

Rank	Institution	Degrees conferred	Responses	Percent response	1956-58 production	Expected production	Ratio of actual to expected production
1	2	3	4	5	6	7	8
1	Teachers College, Columbia University	217	156	71.9	570	421	-.52
2	New York University	117	99	84.6	301	222	-.53
3	Indiana University	92	64	69.6	132	97	.95
4	Colorado State University	77	73	94.8	53	39	+1.98
5	University of Southern California	68	63	92.6	97	72	.94
6	Michigan State University	64	59	92.2	49	36	+1.78
7	University of California, Berkely	60	46	76.7	45	33	+1.82
9	University of Minnesota	56	40	71.4	65	48	1.17
9	Ohio State University	56	50	89.3	82	61	.92
10	University of Illinois	52	45	86.5	57	42	+1.24
11.5	University of Michigan	51	39	76.5	76	56	.91
11.5	Pennsylvania State University	51	43	84.3	89	66	-.77
14	Stanford University	45	33	73.3	102	75	-.60
14	University of California, Los Angeles	45	33	73.3	42	31	+1.45
14	Harvard University	45	40	88.9	76	56	.80
16	University of Wisconsin	44	37	84.1	43	32	+1.38
17.5	University of Missouri	42	40	95.2	45	33	+1.27
17.5	University of Nebraska	42	40	95.2	49	36	1.17
20	University of Chicago	40	30	75.0	41	30	+1.33
20	George Peabody College for Teachers	40	34	85.0	75	55	-.73
20	University of Texas	40	33	82.5	63	47	.85
22.5	State University of Iowa	37	32	86.5	50	37	1.00
22.5	Temple University	37	35	94.6	30	22	+1.68
24	Wayne State University	36	30	83.3	24	18	+2.00
25	The University of Oregon	35	32	91.4	29	21	+1.67
26	Western Reserve University	35	33	97.1	12	9	+3.89
27	Florida State University	33	30	90.9	15	11	+3.00

TABLE 2 - PRODUCTION OF DOCTORAL GRADUATES: BY INSTITUTION

Rank	Institution	Degree conferred	Responses	Percent response	1956-58 production	Expected production	Ratio of actual to expected production
1	2	3	4	5	6	7	8
28	University of Pittsburgh	32	27	84.4	65	48	-.67
29	North Texas State University	28	27	96.4	9	7	+4.00
31	University of Maryland	26	23	88.5	28	21	+1.24
31	Rutgers, The State University	26	24	92.3	20	15	+1.73
31	University of Oklahoma	26	19	73.1	51	38	-.68
33	University of Colorado	25	22	88.0	35	26	.96
34	University of Georgia	24	21	87.5	7	5	+4.80
35	The University of North Carolina	23	19	82.6	27	20	1.15
37.5	University of Arkansas	22	17	77.3	17	13	1.69
37.5	Yeshiva University	22	13	59.1	8	6	+3.67
37.5	University of Utah	22	17	77.3	9	7	+3.14
37.5	University of Wyoming	22	21	95.4	12	9	+2.44
42	Arizona State University	21	16	76.2	3	2	+10.50
42	University of Connecticut	21	18	85.7	30	22	.95
42	University of Florida	21	16	76.2	16	12	+1.75
42	University of Tennessee	21	16	76.2	23	17	+1.24
42	Oklahoma State University	21	17	81.0	20	15	+1.40
45.5	University of Alabama	20	20	100.0	11	8	+2.50
45.5	University of Denver	20	18	90.0	42	31	-.65
47.5	Fordham University	19	16	84.2	26	19	1.00
47.5	Washington State University	19	18	94.7	10	7	+2.71
49.5	Boston University	18	12	66.7	57	42	-.43
49.5	University of Houston	18	16	88.9	23	17	1.06
52.5	Northwestern University	17	15	88.2	37	27	-.63
52.5	Cornell University	17	15	88.2	22	16	1.06
52.5	Syracuse University	17	14	82.4	40	30	-.57
52.5	University of Virginia	17	16	94.1	16	12	+1.42

TABLE 2 - PRODUCTION OF DOCTORAL GRADUATES: BY INSTITUTION

	Institution	Degree conferred	Responses	Percent response	1956-58 production	Expected production	Ratio of actual to expected production
1	2	3	4	5	6	7	8
55.5	State University of New York, Buffalo	16	14	87.5	21	16	1.00
55.5	University of North Dakota	16	14	87.5	10	7	+2.28
57.5	University of Kansas	15	12	80.0	28	21	-.71
57.5	University of Pennsylvania	15	13	86.7	26	19	-.79
59.5	*Southern Illinois University	14	10	71.4			
59.5	Catholic University of America	14	9	64.3	20	15	.93
61	Washington University	12	9	75.0	7	5	+2.40
62.5	Purdue University	11	11	100.0	9	7	+1.57
62.5	St. John's University	11	9	81.8	1	1	+11.00
66	University of Arizona	10	7	70.0	1	1	+10.00
66	*Ball State Teachers College	10	8	80.0			
66	*University of Southern Mississippi	10	9	90.0			
66	*Ohio University	10	9	90.0			
66	George Washington University	10	8	80.0	7	5	+2.00
69.5	The university of Mississippi	9	7	77.8	11	8	1.13
69.5	University of Tulsa	9	8	88.9	5	4	+2.25
72	Auburn University	8	7	87.5	12	9	.89
72	Oregon State University	8	7	87.5	10	7	1.14
72	Texas Technological College	8	6	75.0	12	9	.89
75	University of Kentucky	7	5	71.4	10	7	1.00
75	Duke University	7	7	100.0	7	5	+1.40
75	*Brigham Young University	7	6	85.7			
79	Claremong Graduate School	6	5	83.3	4	3	+2.00
79	Loyola University	6	6	100.0	6	4	+1.50
79	Springfield College	6	4	66.7	4	3	+2.00
79	University of Washington	6	5	83.3	9	7	.86
79	*The American University	6	4	66.7			
84	University of Notre Dame	5	5	100.0	2	1	+5.00

TABLE 2 - PRODUCTION OF DOCTORAL GRADUATES: BY INSTITUTION

Rank	Institution	Degrees conferred	Responses	Percent response	1956-58 production	Expected production	Ratio of actual to expected production
1	2	3	4	5	6	7	8
84	John Hopkins University	5	2	40.0	5	4	+1.25
84	*University of South Dakota	5	4	80.0			
84	University of Cincinnati	5	5	100.0	5	4	+1.25
84	*Texas A & M University	5	5	100.0			
88	*University of Miami	4	4	100.0			
88	*University of New Mexico	4	4	100.0			
88	*University of Toledo	4	3	75.0			
93.5	*University of Idaho	3	3	100.0			
93.5	Iowa State University	3	2	66.7	7	5	-.60
93.5	Montana State University	3	3	100.0	1	1	+3.00
93.5	*University of Rochester	3	3	100.0			
93.5	*Kent State University	3	3	100.0			
93.5	University of South Carolina	3	2	66.7	2	1	+3.00
93.5	Baylor University	3	3	100.0	4	3	1.00
93.5	West Virginia University	3	3	100.0	3	2	+1.50
100.5	*Boston College	2	1	50.0			
100.5	St. Louis University	2	2	100.0	4	3	-.67
100.5	*University of Missouri, Kansas City	2	1	50.0			
100.5	Montana State College	2	2	100.0	1	1	+2.00
100.5	*The Dropsie College	2	2	100.0			
100.5	*East Texas State College	2	1	50.0			
106.5	*University of Delaware	1					
106.5	*Clark University	1					
106.5	*State University of New York, Albany	1	1	100.0			
106.5	North Carolina College	1			1	1	1.00
106.5	*University of Portland	1	1	100.0			
106.5	Utah State University	1	1	100.0	3	2	-.50
	Total	2488	2067		3234	2389	

*Either had no program at the time of the earlier study, or granted no degrees during that period. It is assumed, however, that these are new programs.

below 70 percent (Indiana University 69.0 percent) and thirteen exceeded the overall mean response. Of the eighty institutions producing six or more graduates, only six fell below a response rate of 70 percent, and two of these institutions produced exactly six graduates, four of whom responded in each case. Eighteen of the eighty responded at a rate between 70 and 80 percent, thirty-five had a response rate between 80 and 90 percent, and twenty-one exceeded a 90 percent response.

As indicated earlier the total number of doctorates in education increased by 50 percent. A brief inquiry into the sources of these increases would seem to be in order. Several factors are involved. First, there are twenty-one institutions in this sample that did not produce doctorates six years ago. (See Table 2). In addition, there are five institutions which granted doctorates in the earlier study but either no longer do so, or granted none in 1963 - 1964. The new institutions produced in all 99 graduates. Those no longer producing, assuming the same production rate, would have granted 24 degrees. The net increase due to new programs was approximately 75, less than 10 percent of the total increase. By considering the 87 institutions producing doctorates during both studies, it is possible to predict from the earlier study the expected number of degrees granted by each institution during 1963 - 1964. This procedure required reducing the present sample size by 99 and the earlier sample by 24, and assumes that all institutions participated equally in the increase. By noting discrepancies, then, it would be possible to discover which instituions have contributed most to the increase.

Arbitrarily defining a significant discrepancy as actual production outside plus or minus 20 percent of predicted production, overproducing and underproducing institutions can be identified. (See Column 8, Table 2). In all, sixteen institutions seem to be underproducers, five of which are major producers, and all of which have sizeable programs. It should be noted that these sixteen institutions did not grant fewer degrees in general than five years earlier. Rather, their increase was simply not as great as the mean increase of the total group of institutions. On the other hand forty-five institutions are designated as overproducers by this definition, that is to say, these institutions increased their production at a rate in excess of the mean rate of the groups as a whole. These results do not lend themselves to easy interpretation, but a number of interesting facts are notable. For example, eleven of the sixteen underproducers are private institutions, and "prestige" institutions seem well represented in all three production categories. Considering the fact that twelve underproducers appear among the top thirty producers in the 1956-1958 study, while only eight of the overproducers among these thirty, it would seem that much of the total increased production came from institutions whose production was at an intermediate level in the earlier study. The very high producing institutions tended to level off and the very low producing institutions tended to produce in accordance with the group as a whole. The numerous exceptions to this generalization can be noted in Table 2.

The distribution of the two degrees, Ed.D. and Ph.D. for this sample is noted in Table 3, and it is remarkable only in its close agreement with the earlier study, wherein the Ed.D. and Ph.D.'s were distributed 66.0 percent and 34.0 percent, respectively. A question of continuing interest in the field of education relates to the respective roles of these two degrees, and data will be presented which has bearing on the question later in the report. While it is not possible to infer from the data what the distinction between the degrees should be, it is possible to establish a distinction (e.g., researcher vs practitioner) and check the data to see if this distinction is maintained.

TABLE 3 - DISTRIBUTION OF ED.D. AND PH.D. DEGREES

Degree	Number	Percent
1	2	3
Ed.D.	1345	65.1
Ph.D.	706	34.1
No response	16	0.8
Total	2067	100.0

Major fields of the respondents, as in the earlier study, were remarkable in their number and variety. More than eighty categories were required to code the variety of specialties named. (See Appendix B, Table 1, for complete listing). Part of this variety is associated with the institutions awarding the degrees, and part is associated with the individuals receiving the degrees. Some individuals in labeling their major describe themselves, and this may or may not agree with the institutional name for the department or division within which the major is undertaken. Also, it is quite likely that the institutional label for a division or department may not do justice to the variety of kinds of persons that emerge from their programs. In any case it is difficult to attach an evaluative judgment to this huge number of specialties within the field of professional education. It is easy to conclude that such divergence, as subdivisions within the single field of education, is nonsensical and should be reduced. However, it is possible that the number of categories that are in fact different may be many fewer than is suggested here. Similar programs in different institutions are given different labels, and some individuals report either institutional labels or self-descriptions; both of these occurrences would tend to inflate the apparent program varieties. On the other hand, one can argue that a doctoral program is a highly personal individualized experience, the aim of which is to provide very broad limits within which the individual can pursue his personal goals. Hence, tremendous variation in the labels of major fields would be both expected and desired.

In an effort to reduce variability to a point where major field could reasonably be used as an independent variable, a number of specific categories were classified under broader headings (See Table 4). By this procedure, it was possible to reduce the number of majors to fifteen and still account for 87.9 percent of the respondents. Unfortunately, the broad categories sometimes subsume some specific majors which do not clearly fit. One clear misfit is school psychology which would, perhaps, fit more neatly under psychology than special education. This decision was made to retain comparability with the earlier study.

In the last column of Table 4 are predicted totals for each large category. This set of figures was derived from the earlier study by reducing the totals in each category by the ratio 2067 to 2542, the N's of the respective samples. These figures can then be considered "predicted production". Clearly, administration majors dominate the sample, their numbers being nearly triple those of the second most common major, guidance. At the same time, the proportion of the total sample represented by administration majors is virtually unchanged in the five years since the earlier study. The same may be said of educational psychology, elementary education, student personnel, social foundations, higher education, and practical arts. Little change is noted in curriculum, the subject areas, and secondary education. Increases in proportions are evident in special education, mathematics and science education, guidance, and psychology. Even a superficial study of these results suggest clearly that the impact of certain professional, governmental, and foundation program emphases and dollars is having its effect upon choice of major. The one marked decrease in representation is the field of physical education, but it is quite likely that this outcome is simply reflecting recent institutional reorganization patterns with departments of health, physical education, and recreation becoming detached from schools of education and established as separate schools or departments. A final notable result is the reduction of the "all other" category from 18.7 percent to 9.7 percent since the last study. This may reflect a trend toward choosing the more common majors and away from highly personalized specialization, or, perhaps the field itself is moving toward greater agreement concerning its important subfields.

A statistic of considerable concern which emerged from the earlier study was the age of the sample. The median age of the group was between 38 and 39. A conference of graduate school deans which discussed the results of the 1956 -1958 study did conclude that, among new efforts which should be made in graduate programs in education, attempts should be made to recruit younger persons into doctoral study (Yauch, 1960). The results of this study indicates some, but not great, change in either the central tendency or the variance of the age distribution (See Table 5). In this study the mean age of the group at the time of their response to the questionnaire was 38.89 years with a standard deviation of 6.96 years. Hence, it would appear that two-thirds of the sample was between the approximate limits of 32 and 46 years of age. As could be expected, however, the distribution is positively skewed to the extent that the median (37.72) is somewhat lower than the mean (38.89). This would indicate somewhat increased representation among the younger group and a thinning out of the ranks of the older, but not sufficiently to reduce the mean from that found in the earlier sample. Evaluation of this outcome is up to the reader. However, it seems

TABLE 4 -- CATEGORIES INTO WHICH MAJOR FIELDS WERE CLASSIFIED FOR TABULATION

Major Field Categories	Number	Predicted Number
1	2	3
1. Special Education		
Administration of Special Education	1	
Reading	12	
School Psychology	6	
Special Education	46	
Speech Pathology	4	
Total	69	41
2. Administration		
Elementary	17	
General	475	
Secondary	10	
Total	502	505
3. Curriculum		
Curriculum and Supervision	8	
Curriculum and Teaching	29	
Elementary	6	
General	63	
Total	106	94
4. Physical Education		
Administration of Physical Education	0	
Camping	0	
General	34	
Health Education	12	
Safety Education	2	
Total	48	87
5. Practical Arts		
Agriculture Education	12	
Business Education	26	
Home Economics	3	
Industrial Arts	47	
Nursing Education	9	
Nutrition	0	
Vocational Education	8	
Total	105	104

TABLE 4 - CATEGORIES INTO WHICH MAJOR FIELDS WERE CLASSIFIED FOR TABULATION

Major Field Categories	Number	Predicted Number
1	2	3
6. Social Foundations		
History and Philosophy of Education	11	
History of Education	6	
Philosophy of Education	10	
Social Foundations	22	
Total	49	51
7. Subject Areas		
Anthropology	0	
Art Education	13	
Dramatic Arts	4	
English	18	
Fine Arts	3	
Foreign Language	1	
Language Arts	3	
Music Education	45	
Social Studies	25	
Speech	8	
Total	120	133
8. Mathematics or Science Education		
Mathematics Education	27	
Science Education	49	
Total	76	63
9. Educational Psychology	120	121
10. Secondary Education	91	81
11. Elementary Education	103	106
12. Higher Education	54	58

TABLE 4 - CATEGORIES INTO WHICH MAJOR FIELDS WERE CLASSIFIED FOR TABULATION

Major Field Categories	Number	Predicted Number
1	2	3
13. Guidance		
General	137	
Guidance and Counseling	47	
Total	184	141
14. Clinical Psychology		
Counseling	23	
Counseling Psychology	28	
General	61	
Total	112	80
15. Student Personnel Administration	34	36
16. All other	294	366
Total of all categories	2067	2067

unfortunate in view of the crucial need for high quality doctoral level persons in the field that the proportion of the sample over fifty (6.7 percent) exceeds that under thirty (5.6 percent) years of age.

In using age as an independent variable, all persons thirty-five years and under were considered in the "younger" group, and those thirty-nine and older were considered in the older group. As indicated earlier, these categories were established on the basis of a sample of 300 returns. It is clear that the sample was not random on this variable. The quintile interval should include 816 individuals. However, the "younger" group included 757, the older includes 925. There is a slight discrepancy due to coding errors between the total in Table 5 and later tables involving age as a variable.

TABLE 5 - DISTRIBUTION BY AGE

1 Age Interval	2 Frequency	3 Percent	4 Age Interval	5 Frequency	6 Percent
21-23	1	0.0	28-50	129	6.3
24-26	15	0.7	51-53	64	3.1
27-29	100	4.9	54-56	45	2.2
30-32	242	11.8	57-59	18	0.9
33-35	400	19.0	60-62	8	0.4
36-38	355	17.4	63-65	3	0.1
39-41	279	13.7	66-68	0	0.0
42-44	245	12.0	69-71	1	0.0
45-47	136	6.7	No response	26	

X=38.89 mdn=37.72 S=6.96

Lengths of program represented another source of concern from the earlier study. At that time the median length of program was over five years, and the distribution of program lengths included a group constituting one sixth of the sample requiring 99 or more months to complete their program. This was felt to be a program condidtion considerably more under institutional control than many others, and which could be changed. The comparative results shown in Table 6 clearly indicate that a significant change has occurred. Calculating medians in the same manner, the median program length for the present sample is 45.5 months, for the earlier sample it is 64.7 months. This represents a reduction of approximately 19 months with the category of 99 or more nearly halved. The sizeable number of individuals not responding to this item could well indicate a somewhat inaccurate median, since it would not be safe to assume proportional distribution of these responses over the categories. A more reasonable assumption would be that among those not responding there are more longer than short programs, hence the median underestimates the central tendency. It is reasonable, however, to

TABLE 6 - DISTRIBUTION OF SAMPLE BY LENGTH OF PROGRAM

1 Length in months	2 Present sample number	3 Percent	4 1956-58 number	5 Percent
-30	369	17.8	360	14.2
30-39	379	18.3	320	12.6
40-49	313	15.1	269	10.6
50-59	106	5.1	148	5.8
60-69	181	8.8	234	9.2
70-79	151	7.3	207	8.1
80-89	99	4.8	230	9.0
90-99	92	4.4	151	5.9
-99	182	8.8	431	17.0
No response	195	9.4	192	7.6
Total	2067	99.8	2542	100.0

TABLE 7 - PROGRAM LENGTH AN INDEPENDENT VARIABLE

1 Length	2 Number	3 Percent
Shorter (< -36 months)	754	40.3
Longer (> -55 months)	810	42.8
Middle 20% (37-54 months)	317	16.9
Total	1881	100.0

assume a fairly accurate difference in medians between the two samples.

When length was separately coded as an independent variable the results were shown in Table 7. These results, based on categories developed from a sample of 300 questionnaires, show fairly close adherence to the goal of a distribution of 40 percent, 40 percent, and 20 percent which was sought. Hence, when length is used as an independent variable the comparisons will be between 754 individuals with shorter programs and 201 individuals with longer programs.

The final independent variable of interest is that of community origins. The results, in Table 8, indicate no clearly dominant type of community from which

TABLE 8 - COMMUNITY BACKGROUNDS

	Present Sample		1956-58 Sample	
	Number	%	Number	%
Rural	312	15.1	356	14.0
Village (under 2500)	260	12.6	382	15.0
Town, no suburb (2500-10,000)	271	13.1	366	14.4
Town, suburb (2500-10,000)	131	6.3	92	3.6
Small City, no suburb (10,000-100,000)	314	15.2	446	17.5
Small City, surburb (10,000-100,000)	177	8.6	121	4.8
Large City (over 100,000)	587	28.4	759	29.9
No Response	15	0.7	20	0.8
Total	2067	100.0	2542	100.0

doctoral recipients in education spring. As in the earlier study the modal category is the large city, but with a group of nearly equal size coming from the combined categories of rural areas and villages. A comparison of this distribution of community orgins with census data on the nation as a whole would be interesting, but not undertaken, primarily because of the choice of any particular year's census data would be difficult in view of the variance in age of the sample. A few of the statistics in the table seem worthy of comment: The increase in percentages from suburbs between the two samples is probably explainable in terms of population shifts and is not surprising. Rather, more surprising is the lack of change in the proportions from rural and small village areas. It has been hypothesized that education is often seen as a means of upward social mobility and perhaps professional education serves especially well, or is perceived as so serving, among the group from the very small communities.

When "community origins" was used as an independent variable, the distinction between suburb and no suburb was dropped, and the "rural" and "village" categories were combined. The result was a four categories system which will be in evidence in the data which follow.

At this point six kinds of data have been presented which in part describe the sample of doctoral recipients. The particular six kinds of data presented also serve as the independent variables in the study, hence, their primacy in this section of the report. At this point, however, the interaction of these variables has been ignored, and this will constitute the theme of the next section.

Probably the variable of most general interest is that of the two degrees, the Ed.D. and the Ph.D. Most educators have strong opinions concerning the respective functions of the two degrees, and it would probably not be unfair to suggest that they hold strong opinions about the kinds of people that pursue one degree as opposed to the other. While the "ought" questions are not answerable here, much data, relative to the functions served by the two degrees and the kinds of persons taking the degrees, shall be presented.

TABLE 9 - DEGREE VERSUS MAJOR FIELD

	Ph.D Percent	Ed.D Percent	No Response
Special Education	33.3	66.7	69
Administration	21.2	78.8	499
Curriculum	26.7	73.3	105
Physical Education	24.4	75.6	45
Practical Arts	25.2	74.8	103
Social Foundations	53.1	46.9	49
Subject Areas	30.3	69.7	119
Math or Science Education	52.6	47.7	76
Educational Psychology	72.5	27.5	120
Secondary Education	19.8	80.2	91
Elementary Education	26.2	73.8	103
Higher Education	42.6	57.4	54
Guidance	38.0	62.0	184
Psychology	64.0	36.0	111
Student Personnel	22.6	77.4	31
Total			1759

One might predict on a simple researcher-practitioner dimension that certain majors would tend to choose one degree over the other in many cases. The relevant data is presentedinTable 9, and as may be seen many of the results are predictable. Recalling that the overall distribution of degrees was approximately two-to-one favoring the Ed.D., certain majors clearly do not follow the general pattern. Administration, curriculum, physical education, practical arts, secondary education, elementary education, and student personnel are oversubscribed with respect to the Ed.D. Social foundations and math and science education are undersubscribed with respect to the Ed.D., while psychology and educational psychology reverse the general trend. It is probably the case that the last two fields are in fact the most research oriented areas, while those listed earlier attract greater numbers less interested in research. It would seem, therefore, that there is evidence that doctoral candidates do elect the degree in part on the basis of field. The numerous exceptions (e.g., the Ed.D. in educational psychology, the Ph.D. in secondary education) are not simply explained. The greater prestige of the Ph.D. affects the choice of those who plan to work in the university setting instead of the public school. Some institutions offer only the Ph.D. degree, but offer majors in secondary education. In some institutions differential requirements for the two degrees undoubtedly constitute a greater factor in choice than either majors or the professional goals.

The differences in distribution of the Ed.D. and Ph.D. degrees between the major and minor producing institutions is somewhat notable. The results in Table 10 indicate a significantly greater proportion of the degrees issued by the minor producing institutions are Ed.D.'s than is the case among the major producing institutions. (Chi-squared analysis shows significance at the .01 level.) Institutions just initiating doctoral programs in education are more likely to begin an Ed.D. than a Ph.D. program. There are many of these new

TABLE 10 - MAJOR-MINOR PRODUCERS VERSUS DEGREE

	Ed.D. %	Ph.D. %	N
Major producers	61.7	38.3	1091
Minor producers	70.2	29.8	955

TABLE 11 - LENGTH OF PROGRAM VERSUS DEGREE

	Ed.D. %	Ph.D. %	N
Shorter (< 36 months)	65.2	34.8	749
Longer (> 54 months)	67.7	32.3	796

programs among the minor producing institutions, and for the most part the institutions are rapidly growing state colleges, or newly labeled universities. To compensate for these new Ed.D. programs among minor producers, there are a number of large prestigious institutions which confer only the Ph.D. degrees, but have small programs in the area of education. This particular variable (major versus minor producing institutions) probably obscures more than it reveals about distribution of degrees.

The same may be said of program length as it is related to degree. While the most common, but far from universal, distinction between degree requirements is the language for the Ph.D., either this additional requirement does not lengthen the program, or the added length is compensated for by other factors (e.g., more part-time Ed.D. programs). Table 11 indicates no discernable interaction of degree and length of program. Age as a variable, on the other hand, does show a significant relationship (See Table 12) with 57.9 percent of the younger group selecting the Ed.D. as opposed to 71.0 percent of the older group. On the Ph.D., the complementary proportions show 42.1 percent of the younger group choosing the Ph.D. and 29.0 percent of the older group.

TABLE 12 - AGE VERSUS DEGREE

	Ed.D. Percent	Ph.D. Percent	N
Younger (<35)	57.9	42.1	750
Older (> 39)	71.0	29.0	922

The relationship between degree pursued and community background shows a clear cut progression. Of those individuals from rural areas and villages 72.0 percent sought the Ed.D. and 28.0 percent the Ph.D. These respective proportions decrease and increase in an orderly progression, and among individuals from large cities 58.6 percent elect the Ed.D. and 41.1 percent the Ph.D. The results are in Table 13.

TABLE 13 - DEGREE VERSUS COMMUNITY BACKGROUND

	Ed.D. Percent	Ph.D. Percent	N
Community Backgrounds			
Rural or village (2500)	72.0	28.0	571
Small Town (2500-10,000)	70.2	29.8	400
Small City (10,000-100,000)	62.5	37.5	485
Large City (100,000)	58.6	41.4	585

When the "younger" and "older" groups are viewed against the fifteen general categories of major field, some rather clear-cut trends are in evidence (See Table 14). Due to the slight imbalance of the "younger" and "older" groups, the expected percentages are 45.9 and 54.1 respectively. Hence, a significant deviation of the younger group, for instance, from 45.9 percent should be considered of interest. It would seem then that special education (38.5 percent), administration (37.6 percent), secondary education (32.4 percent), and higher education

TABLE 14 - AGE VERSUS MAJOR

Major	Younger %	Older %	N
Special Education	38.5	61.5	52
Administration	37.6	62.4	398
Curriculum	40.9	59.1	88
Physical Education	54.0	46.0	37
Practical Arts	42.7	57.3	89
Social Foundations	47.5	52.5	40
Subject Areas	48.0	52.0	98
Math or Science Education	47.7	52.3	65
Educational Psychology	63.6	36.4	99
Secondary Education	32.4	67.6	71
Elementary Education	42.0	58.0	81
Higher Education	35.6	64.4	45
Guidance	55.3	44.7	150
Psychology	63.4	36.6	101
Student Personnel	61.3	38.7	31
Total			1445

(35.6 percent) tend to have a smaller than expected proportions in the younger group. At the same time, physical education (54.0 percent), psychology (63.4 percent), and student personnel (61.3 percent) tend to attract predominantly younger individuals.

When the age variable is considered against community orgins, the older group seems to come from rural and village backgrounds and the younger from small cities. Large cities and small towns on the other hand seem to have supplied approximately the expected proportions of "younger" and "older" individuals to the sample. These results are in Table 15. When the same age variable is intersected with the length of program variable a very significant degree of relationship is in evidence. (See Table 16). Clearly, the older group dominates among the longer programs, and the younger dominates the shorter programs. Interpretation of this finding is not clear at this point, however. For example, secondary education majors are in general from the older group, yet

TABLE 15 - AGE VERSUS COMMUNITY BACKGROUND

	Age		
	Younger Percent	Older Percent	N
Community Background			
Rural or Village (2500)	40.8	59.2	470
Small Town (2500-10,000)	44.5	55.5	321
Small City (10,000-100,000)	50.5	49.5	396
Large City (10,000)	44.6	55.4	486
Total			1673

as will be seen secondary education seems to be a shorter program. There are sufficient similar cases that the simple interpretation, that the older group is older because of their long programs, is questionable. The question of whether kinds of institution, the major or minor producers, is associated with age of doctoral graduates is dealt with in Table 17. The results indicate no pronounced trend, that major producers and minor producers have in the doctoral programs close to the expected representation of the older and younger groups.

TABLE 16 - AGE VERSUS LENGTH OF PROGRAM

	Length of Program		
	Shorter Percent	Longer Percent	N
Age			
Younger	63.9	36.1	557
Older	37.8	62.2	693
Total			1250

TABLE 17 - AGE VERSUS MAJOR-MINOR PRODUCING INSTITUTIONS

	Major Producers Percent	Minor Producers Percent	N
Age			
Younger	51.7	48.3	753
Older	54.7	45.3	922
Total			1675

Table 18 presents data relevant to action of major field and community origin. It is possible to interpert these data in two ways. First by looking down a column it is possible to determine certain major fields which typically do not draw their graduates from a particular type of community or which typically do draw their graduates from a particular kind of community. For example, column one refers to rural or village origin. This column represents 28 percent of the total. Certain major fields, however, deviate considerably from the expected 28 percent. It would seem then that rural and village communities seem to supply an abundance of administration majors, practical arts majors, secondary education majors, and relatively few psychology majors, educational psychology majors, and student personnel majors. Large cities on the other hand act in a complementary manner. Psychology majors and educational psychology majors tend to come in proportionately larger groups from the large cities, and administration majors and practical arts majors much more rarely come from large cities. A second way of looking at the data is across rows. Guidance majors for example, seem to be distributed reasonably well across all kinds of communities with a slight underrepresentation from small towns and overrepresentation from large cities.

There seems to be no clear relationship although chi-square is significant at the .01 level, between community origin and length of program, except perhaps for those individuals coming from larger cities. In this case it would seem that in general those from larger cites are likely to have longer programs. This relationship can be seen in Table 19. There does not seem to be a relationship between community background and the choice of a major versus a minor producing institution. In other words, the major producing institutions seem to attract about equally well from all categories of community background (See Table 20).

Table 21 reports the relationship between major field and major versus minor producing institution, and it would seem as if there is a relationship here in

TABLE 18 - MAJOR FIELD VERSUS COMMUNITY BACKGROUND

	Rural village %	Small town %	Small city %	Large city %	N
Special education	20.3	18.8	29.0	31.9	69
Administration	34.1	19.2	23.0	23.8	501
Curriculum	25.0	15.4	29.8	29.8	104
Physical education	21.7	23.9	19.6	34.8	46
Practical arts	38.1	17.1	26.7	18.1	105
Social foundations	25.0	27.1	20.8	27.1	48
Subject areas	23.3	21.7	24.2	30.8	120
Math and science education	31.6	18.4	25.0	25.0	76
Educational psychology	20.2	24.4	19.3	36.1	119
Secondary education	36.3	20.9	18.7	24.2	91
Elementary education	30.1	20.4	18.4	31.1	103
Higher education	20.4	20.4	31.5	27.8	54
Guidance	29.5	15.2	21.9	33.3	183
Psychology	11.6	17.0	26.8	44.6	112
Student personnel	17.6	32.4	35.3	14.7	34
Total	28.0	19.5	23.9	28.6	1765

TABLE 19 - COMMUNITY BACKGROUND VERSUS LENGTH OF PROGRAM

	Shorter %	Longer %	N
Rural village	52.9	47.1	431
Small town	49.7	50.3	302
Small city	49.5	50.5	368
Large city	42.5	57.5	447
Total	48.5	51.5	1548

TABLE 20 - COMMUNITY BACKGROUND VERSUS MAJOR AND MINOR PRODUCING INSTITUTIONS

	Major %	Minor %	N
Rural village	49.6	50.4	571
Small town	54.0	46.0	400
Small city	53.9	46.1	490
Large city	56.3	43.7	586
Total	53.7	46.3	2047

certain areas. In those institutions with small programs guidance majors and social foundation majors are more likely to be offered, while majors in physical education, practical arts and the subject fields are less likely to be offered than in the case of the major producing institutions. Rather suprisingly there appears to be very little relationship between choice of major field and length of program. The only two major fields wherein there is a suggestion of a relationship are secondary education and curriculum. Secondary education majors, do in general, seem to have shorter programs while curriculum majors have longer programs. These results may be seen in Table 22. Table 23 presents the relationship between the major and the minor producing institutions and length of program. The results indicate no relationship whatsoeven (See Table 23).

TABLE 21 - MAJOR FIELD VERSUS MAJOR AND MINOR PRODUCING INSTITUTIONS

Major Field	Major Producing Institutions %	Minor Producing Institutions %	Number
Special Education	46.4	53.6	69
Administration	49.8	50.2	502
Curriculum	43.8	56.2	105
Physical Education	60.4	39.6	48
Practical Arts	71.4	28.6	105
Social Foundations	38.8	61.2	49
Subject Areas	84.2	15.8	120
Math or Science Education	61.8	38.2	76
Educational Psychology	55.8	44.2	120
Secondary Education	52.7	47.3	91
Elementary Eduation	49.5	50.5	103
Higher Education	57.4	42.6	54
Guidance	38.2	61.8	183
Psychology	49.1	50.9	112
Student Personnel	58.8	41.2	34
Total	53.2	46.8	1771

TABLE 22 - MAJOR FIELD VERSUS LENGTH OF PROGRAM

Major	Length of Program Shorter Percent	Longer Percent	Number
Special Education	54.2	45.8	48
Administration	44.2	55.8	387
Curriculum	38.6	61.4	83
Physical Education	48.6	51.4	37
Practical Arts	58.4	41.6	77
Social Foundations	44.7	55.3	38
Subject Areas	40.9	59.1	88
Math and Science Education	48.0	52.0	52
Educational Psychology	54.2	45.8	83
Secondary Education	60.9	39.1	69
Elementary Education	50.7	49.3	75
Higher Education	57.4	42.6	47
Guidance	52.9	47.1	135
Psychology	42.8	57.2	84
Student Personnel	47.8	52.2	23
Total	48.3	51.7	1326

TABLE 23 - LENGTH OF PROGRAM VERSUS MAJOR AND MINOR PRODUCING INSTITUTIONS

	Length of Program Shorter Percent	Longer Percent	Number
Major Producers	47.7	52.3	822
Minor Producers	49.2	50.8	726
Total	48.7	51.3	1548

Although the sample has been discussed at some length with respect to the kind of community from which they came, another way of looking at the origins of the individuals of the sample is geographically by state or region. All fifty states were represented in the sample, including Alaska, and Hawaii. Puerto Rico was represented from among the United States territories, and large numbers of foreign students from a variety of nations received their degrees during this time.

In the earlier study of the 1956-1958 graduates it was found that certain states contributed considerably more individuals to the sample than might have been expected on the basis of their population, and other states contributed considerably less. The same kind of analysis was performed on this group. The first step in the analysis required the establishment of an expected number of individuals in the sample from each state. The procedure for this was as follows: Since the average age of the group was slightly more than 38 years, the "average" year of birth was in the later twenties. Using the 1930 census, then, the proportion of the total population of the country was calculated for each state. All individuals not born in the United States were struck from the sample and the remainder was used as the total sample size. The assumption was then made that each state would contribute to the sample in proportion to its share of the total population of the United States. These expected numbers together with the actual numbers born in each state are reported in Table 24. In the last column of this table the overproducers and underproducers are indicated. An overproducer is defined as a state which produced twenty percent more than would have been expected on the basis of population. An underproducer is a state that produced twenty percent less than would have been expected on the basis of population. It is fully recognized that certain states with very low population may show spurious results. The reader should take this into consideration. With these definitions of procedure in mind the following states can be listed as underproducers: Alabama Arkansas, Delaware, Kentucky, Louisiana, Maine, Maryland, Mississippi, New Jersey, New Mexico, North Carolina, Rhode Island, South Carolina, Tennessee, Virginia, Vermont, and West Virginia. Of those states listed Delaware, Maine and New Mexico should be excluded because of their low population. Rhode Island is questionable. The predominance of southern states in this group is quite obvious. In fact, no southern state is excluded except Florida, and New Jersey is the only underproducing state not in the south. Among the overproducers are Colorado, Iowa, Kansas, Michigan, Montana, Nebraska, New Hampshire, Oregon, Utah, Washington, and Wyoming. Some of these overproducing states are unusually productive. For example, on the basis of population Kansas would be expected to produce 29 individuals for the sample, their production was in fact sixty. Utah would have been expected to produce eight, they did in fact produce thirty-four. These results are quite consistent with the earlier study, where the underproducers were found to be southeastern states, while the overproducers in general were found to be the "great plains" states. In this sample, the overproducing area has expanded beyond the "plains" area to the west and northwest. It would suggest that at the time the explanation of these results could lie in the kinds of social structures in this region of the country, and the different emphases placed on social mobility and the perceived contribution to such social mobility. This group, however, did receive their doctoral degrees in education. It is not at all certain, that if some other degree were surveyed the same results would emerge.

In the total sample of 2067 individuals who responded there were 1690 men and 372 women--five were not identifiable by sex. Hence 81.96 percent of the sample was male. This figure represents a very slight increase in the predominance of men since the 1956-1958 study, wherein the figure reported was 79.7 percent. In the earlier study this four-to-one ratio of men to women was interpreted as suggesting that women constituted an insufficiently exploited pool of talent. The results of the present study seem to indicate that this pool of talent is still relatively untapped. On the other hand a probably equal valid interpretation of this very slight change in ratio is that the profession is attracting men into it. However, considering the ratio of males and females at other levels of professional

TABLE 24 - PLACE OF BIRTH BY STATES

States	Population of States 1930 (in thousands)	Proportion of Population	Actual Number	Expected Number	Dis-crepancy	Dis-crepancy
Alabama	2646	2.15	31	41	-10	-25
Alaska						
Arizona	436	0.35	6	7	-1	14
Arkansas	1845	1.50	22	29	-8	-24
California	5677	4.62	75	89	-14	16
Colorado	1036	0.48	34	16	+18	+112
Connecticut	1607	1.30	23	25	-2	8
Delaware	238	0.19	1	4	-3	-15
Dist. of Columbia	487	0.39	9	8	1	12
Florida	1468	1.19	20	23	-3	3
Georgia	2909	2.36	25	46	-21	-46
Hawaii						
Idaho	445	0.36	12	7	+5	+71
Illinois	7631	6.21	120	120	0	00
Indiana	3239	2.63	50	51	-1	2
Iowa	2471	2.01	51	39	+18	+46
Kansas	1881	1.53	60	29	+31	+107
Kentucky	2615	2.12	25	41	-16	-39
Louisiana	2102	1.71	15	33	-18	-55
Maine	797	0.64	7	12	-5	-42
Maryland	1632	1.32	17	25	-8	-32
Massachusetts	4250	3.46	62	67	-5	7
Michigan	4842	3.94	97	76	+21	+28
Minnesota	2564	2.08	47	40	+7	+18
Mississippi	2010	1.63	17	31	-14	-45
Missouri	3629	2.95	52	57	-5	9
Montana	538	0.43	12	8	+4	50
Nebraska	1378	1.12	49	22	+27	123
Nevada	91	0.07	1	1	-0	00
New Hampshire	465	0.37	9	7	+2	+29
New Jersey	4041	3.29	46	63	-17	-27
New Mexico	423	0.34	4	6	-2	-33
New York	12588	10.25	234	198	+36	18
North Carolina	3170	2.58	34	50	-16	-32
North Dakota	681	0.55	23	11	+12	+109
Ohio	6647	5.41	116	104	+12	11
Oklahoma	2396	1.95	42	38	+4	10
Oregon	954	0.77	24	15	+9	-60
Pennsylvania	9631	7.84	147	151	-4	3
Rhode Island	687	0.55	8	11	-3	-27
South Carolina	1739	1.41	16	27	-11	-41
South Dakota	693	0.56	15	11	+4	36
Tennessee	2617	2.13	28	41	-13	32
Texas	5825	4.74	81	91	-10	11
Utah	508	0.41	34	8	+26	325
Vermont	360	0.29	4	6	-2	33
Virginia	2422	1.97	17	38	-21	-55
Washington	1563	1.27	33	24	+9	+37
West Virginia	1729	1.40	17	27	-10	-37
Wisconsin	2939	2.39	44	46	-2	4
Wyoming	226	0.18	6	3	+3	+100

TABLE 25 - SAMPLE DISTRIBUTION BY SEX

	Number	Percent
Male	1690	81.8
Female	372	18.0
No Response	5	00.2
Total	2067	100.0

TABLE 26 - SEX VERSUS MAJOR FIELDS

	Sex		
Major	Male Percent	Female Percent	Number
Special Education	76.8	23.2	69
Administration	93.2	6.8	501
Curriculum	72.4	27.6	106
Physical Education	79.2	20.8	48
Practical Arts	79.0	21.0	105
Social Foundations	81.6	18.4	49
Subject Areas	80.8	19.2	120
Math and Science Education	78.9	21.1	76
Educational Psychology	85.0	15.0	120
Secondary Education	91.2	8.8	91
Elementary Education	58.8	41.2	102
Higher Education	83.3	16.7	54
Guidance	78.8	21.2	184
Psychology	78.6	21.4	112
Student Personnel	82.4	17.6	34
Total	82.9	17.1	1771

TABLE 27 - SEX VERSUS AGE

	Sex		
Age	Male Percent	Female Percent	Number
Younger	90.9	9.1	756
Older	74.1	25.9	923
Total	81.6	18.4	1679

education it would seem that the former interpretation has more strategical implications.

While women constitute only 18 percent of the total sample it was found that this small number of women distributed themselves quite well among the various major fields. Of the fifteen major field categories only four show marked deviation from the expected 18 percent. As would be expected elementary education and curriculum tended to attract proportionately more women, while administration and secondary education attract proportionately less. Not even in elementary education, however, did women constitute the majority of the group. It is also interesting to note with an expectation of 18 percent women, the so called "younger" group contained only 9.1 percent women, while "older" group contained 26 percent women. Information on the sample distribution by sex can be found in Tables 25, 26 and 27.

Further information on the sample indicates that 82.2 percent were married at the time they filled out the questionnaire, and 75 percent of the sample had one or more children. In fact only 9.2 percent of those individuals who were married reported no children. Without question the pursuit of the doctoral degree in education is a family undertaking. These results may be seen in Table 28 and 29. A further look at the family structure of the sample indicates that of those married, 15.8 percent of the spouses had terminated their education as high school graduates or less, 21.0 percent had attended college but earned no degree, and 41.8 percent had received bachelor's degrees. Only 3.8 percent, however, had earned the doctorate. (See Table 30.) If a degree was earned it was most likely taken in the field of education. The figures in Table 31 show that of those spouses with degrees 43 percent had earned them in the field of education. What did these spouses do while the respondents were earning their degree? Table 32

TABLE 28 - MARITAL STATUS

	Number	Percent
Single	279	13.5
Married	1700	82.2
Divorced	56	2.7
Other	24	1.2
No response	8	0.4
Total	2067	100.0

TABLE 29 - NUMBER OF CHILDREN

	Number	Percent
One child	296	14.2
Two children	589	28.5
Three children	422	20.4
Four children	156	7.5
Five children	58	2.8
Six children	20	1.0
More than six	15	0.7
Single	291	14.1
Married, no children	190	9.2
No response	30	1.5
Total	2067	99.9

TABLE 30 - EDUCATION OF SPOUSE

	Number	Total %	Married %
Elementary (1-8)	14	0.7	0.8
High school (unfinished)	18	0.9	1.0
High school (graduate)	244	11.8	14.0
Two years or less of college	287	13.9	16.5
More than 2 years - no degree	79	3.8	4.5
Bachelor's degree	727	35.2	41.8
Master's degree	302	14.6	17.4
Doctor's degree	66	3.2	3.8
Single, no spouse	285	13.8	
No response	45	2.2	
Total	2067	100.1	99.8

TABLE 31 - SPOUSE'S MAJOR EDUCATIONAL FIELD

Major Field of Spouse	Number	Of Total Percent	Of Those Married Percent
Education	523	25.3	43.0
Biological Science	20	1.0	1.6
Physical Science	12	0.6	1.0
Social Science	134	6.5	11.0
Humanities	241	11.6	19.8
Technical or Vocational	281	13.6	23.1
Other	6	0.3	0.5
No degree	373	18.0	
No Spouse	264	12.8	
No Response	213	10.3	
Total	2067	100.0	100.0

TABLE 32 - OCCUPATION OF SPOUSE DURING DOCTORAL PROGRAM

Occupation of Spouse	Number	Of Total Percent	Of Those Married Percent
Professional or managerial	183	8.8	10.9
Clerical or sales	172	8.3	10.3
Service	12	0.6	0.7
Agriculture	7	0.3	0.4
Skilled labor	3	0.1	0.2
Semi-skilled or unskilled labor	11	0.5	0.6
Education (teacher)	407	19.7	24.3
Education (non-teacher)	84	4.1	5.0
Housewife	795	38.5	47.5
No response	393	19.0	
Total	2067	99.9	99.9

indicates that nearly half simply continued their role as housewife. The next largest group (24.3 percent) were teachers, and an additional five percent served some kind of non-teaching function in education. It does seem, however, that more than half of the spouses were working and contributing to the family economy during the time of the doctoral program.

While the preceding section deals with the respondent's present family structure, the present section is devoted to family background. Using the standard Dictionary of Occupational Titles as a catogorical system, the survey results indicate that 39.8 percent of the sample came from a family wherein the father was engaged in professional or managerial work. Fourteen point eight percent of the sample had fathers in agriculture, and 15.1 percent of the fathers was classified as skilled laborers. As was the case in the earlier study this group of doctoral recipients present a striking contrast to their fathers, educationally speaking, and again provide strong evidence of high aspiration with education as the means. Forty-one point three percent of the fathers of the individuals in the sample terminated their education in elementary school. Sixty-eight point nine percent terminated their education with high school. Only 15.9 percent held degrees at any level. Since the group being surveyed here by definition 100 percent of which hold the doctor's degree, it is interesting to note that only 3.4 percent of their fathers hold a degree at this level. It is also interesting to note that the individuals in the sample are rarely following in their fathers' footsteps. Less than 5 percent of the fathers were associated with education either as teacher or non-teacher. Mothers of the respondent present a somewhat similar picture, educationally at least. While fewer of the mothers terminated their education in elementary school, 33.8 percent, an even larger proportion terminated at the high school level (71.1 percent). Only 10.9 percent had been granted degrees at any level. Only 22.8 percent of the mothers were listed as having an occupation. There were, however, nearly twice as many mothers who were occupied in the educational settings as fathers (8.9 percent to 4.5 percent respectively). Those findings herein described can be found in Tables 33, 34, 35, and 36 respectively. The picture which seems to be emerging here of the respondents

TABLE 33 - FATHER'S OCCUPATION

Father's Occupation	Number	Of Total Percent
Professional or managerial	730	35.3
Clerical or sales	244	11.8
Service	116	5.6
Agriculture	306	14.8
Skilled labor	312	15.1
Semi skilled or unskilled labor	184	8.9
Education (teacher)	71	3.4
Education (non-teacher)	23	1.1
No response	81	3.9
Total	2067	99.9

TABLE 34 - FATHER'S EDUCATION

Father's Education	Number	Of Total Percent
Elementary (1-8 grades)	854	41.3
High school, unfinished	237	11.5
High school graduate	333	16.1
Two years or less of college	226	10.9
More than 2 years but no degree	24	1.2
Bachelor's degree	151	7.3
Masters (or first professional) degree	107	5.2
Doctors degree	71	3.4
Others or listed as deceased	23	1.1
No response	41	2.0
Total	2067	100.0

family background seems to have several dimensions. The fathers in general have been fairly successful in their occupational careers with only 8.9 percent falling in the categories of semi skilled or unskilled labor. The number at the professional or managerial levels considerably exceeds the occupational distribution for the United States as a whole. Sociologically speaking they are probably predominantly middle and lower middle class. Their educational background suggests occupational success which would not be predicted on the basis of education alone.

TABLE 35 - MOTHER'S OCCUPATION

Mother's Occupation	Number	Of Total Percent
Professional or managerial	91	4.4
Clerical or sales	110	5.3
Service	46	2.2
Agriculture	1	
Skilled labor	16	0.8
Semi-skilled or unskilled	25	1.2
Education (teacher)	177	8.6
Education (non-teacher)	6	0.3
Housewife	1531	74.1
No response	64	3.1
Total	2067	100.0

TABLE 36 - MOTHER'S EDUCATION

Mother's Education	Number	Of Total Percent
Elementary (1-8 grades)	698	33.8
High school, unfinished	273	13.2
High school graduate	498	24.1
Two years or less of college	277	13.4
More than 2 years but no degree	32	1.5
Bachelor's degree	181	8.8
Masters (or first professional) degree	40	1.9
Doctors degree	4	0.2
Other or listed as deceased	24	1.2
No response	40	1.9
Total	2067	100.0

Some additional interesting contrasts can be seen in Table 37 where major fields and father's occupation are considered together. While 36.8 percent of the total sample had fathers in professional or managerial occupations, it can be seen that proportionately more fathers of those who majored in psychology, higher education, educational psychology, and student personnel work fell in this category. At the same time proportionally less physical educational majors and practical arts majors had fathers in a professional or managerial occupation. While 22 percent

TABLE 37 - MAJOR FIELD VERSUS FATHER'S OCCUPATION

Major	Prof. Man. %	Clerical, sales %	Service %	Agriculture %	Skilled labor %	Unskilled labor %	Educ. Teacher %	Educ. non. teach. %	N.
Special Education	42.2	14.1	7.8	9.4	12.5	12.5	1.6	0.0	64
Administration	31.9	12.0	7.0	17.4	14.3	12.8	3.1	1.4	483
Curriculum	31.4	9.8	4.9	14.7	22.5	7.8	6.9	2.0	102
Physical Education	29.2	12.5	6.3	12.5	16.7	16.7	6.3	0.0	48
Practical Arts	30.4	10.8	3.9	22.5	18.6	9.8	3.9	0.0	102
Social Foundations	38.8	16.3	4.1	16.3	10.2	12.2	2.0	0.0	49
Subject Areas	39.4	12.1	7.8	11.2	13.8	8.6	6.0	0.9	116
Math and Science Education	40.5	12.2	2.7	13.5	12.2	9.4	9.4	0.0	74
Educational Psychology	44.4	13.7	6.8	12.0	16.2	5.1	1.7	0.0	117
Secondary Education	41.2	10.6	2.4	16.5	18.8	7.0	1.2	2.4	85
Elementary Education	40.4	7.1	3.0	14.1	26.3	4.0	4.0	1.0	99
Higher Education	49.0	16.3	4.1	6.1	14.3	10.2	0.0	0.0	49
Guidance	27.3	15.9	8.5	15.9	17.0	10.2	4.0	1.1	176
Psychology	56.0	10.1	5.5	8.2	9.2	7.3	0.9	2.8	109
Student Personnel	47.1	14.7	2.9	11.8	20.6	0.0	2.9	0.0	34
Total	36.8	12.2	5.9	14.7	15.9	9.7	3.6	1.1	1707

TABLE 38 - MAJOR FIELD VERSUS FATHER'S EDUCATION

	Elementary %	High school unfinished %	High school graduate %	> 2 years college %	< 2 years college %	Bachelor's degree %	Masters degree %	Ph. D. %	Other %	N
Special Education	40.9	10.6	22.7	9.1	1.5	6.1	4.5	1.5	3.0	66
Administration	45.1	12.8	15.8	11.1	1.4	6.1	4.2	2.0	1.4	494
Curriculum	41.7	8.7	16.5	11.6	1.0	5.8	7.8	3.9	2.9	103
Physical Education	44.7	14.9	12.8	4.2	0.0	12.8	6.4	4.2	0.0	47
Practical Arts	49.5	13.6	11.6	12.6	1.9	5.8	1.0	3.9	0.0	103
Social Foundations	41.7	10.4	12.5	14.6	0.0	6.3	8.3	4.2	2.1	48
Subject Areas	41.9	17.1	13.7	8.5	0.0	7.7	9.4	1.7	0.0	117
Math and Science Education	32.9	18.4	15.8	14.5	0.0	10.5	3.9	2.6	1.3	76
Educational Psychology	34.2	8.5	19.6	14.5	1.7	8.5	6.0	6.0	0.9	117
Secondary Education	48.9	6.8	15.9	12.5	1.1	4.5	6.8	3.4	0.0	88
Elementary Education	36.3	12.7	19.6	12.7	1.0	8.8	3.9	4.9	0.0	102
Higher Education	39.2	13.7	19.6	11.8	0.0	2.0	0.0	11.8	2.0	51
Guidance	47.5	12.0	12.6	10.9	1.1	6.6	4.4	3.3	1.1	183
Psychology	40.0	7.3	15.4	13.6	1.8	8.2	5.5	7.3	0.9	110
Student Personnel	23.5	8.8	29.4	8.8	0.0	23.5	2.9	0.0	2.9	34
Total	42.4	12.0	16.0	11.6	1.1	7.2	5.0	3.6	1.2	1739

of the practical arts majors had fathers in agriculture, only 6 percent of the higher education majors had fathers occupied in that field. While 26 percent of the fathers of elementary majors were engaged in skilled labor, only 8.9 percent of the psychology majors had fathers in skilled labor. Similar findings are to be found when major field is intersected with father's education. It would be expected that 41.3 percent of those in each major would have fathers who terminated their education at the elementary level. It is found, however, that among practical arts majors, guidance majors, and secondary education majors, this expectation is greatly exceeded. On the other hand those majoring in math or science education, student personnel, and educational psychology, tended to come from families whose father terminated his education at a later time. These results may be seen in Table 38.

An additional perspective of the sample can be gained by looking at the educational career patterns of the sample prior to entering into the doctoral program. As may be seen in Table 39 the vast majority in the sample came from public secondary schools with less than 3 percent of the sample coming from private non-denominational schools, and only 7.7 percent coming from private denominational schools. In general they graduate from relatively small high schools with nearly half the sample coming from graduating classes with less than 100 persons. Only 11.4 percent came from classes of over 500 (See Table 40.) The individuals in the sample attended a variety of types of undergraduate institutions. The largest single group of respondents, as undergraduates, attended the large and complex institutions with three or more professional schools. The next largest group comprising 28.8 percent of the respondents attended smaller institutions emphasizing liberal arts general, and teacher preparation. It should be noted here that the majority of this sample received their bachelor's degree immediately after

TABLE 39 - TYPE OF SECONDARY SCHOOL ATTENDED

	Number	Of Total Percent
Public	1833	88.7
Private, non-denominational	58	2.8
Private, denominational	159	7.7
No response	17	0.8
Total	2067	100.0

TABLE 40 - SIZE OF SECONDARY SCHOOL GRADUATING CLASS

	Number	Of Total Percent
1-9	56	2.7
10-19	165	8.0
20-39	262	12.5
40-59	204	9.9
60-99	268	13.0
100-199	352	17.0
200-499	492	23.8
500 and over	235	11.4
No response	33	1.6
Total	2067	99.9

the second world war. Many of the institutions which they attended have since grown in size and complexity and are no longer considered the same "type" as they were then. The results suggest that only 10.2 percent have graduated from teacher preparation institutions. It is quite likely, however, that many of the institutions now classified as liberal arts general, and teacher preparatory were then classified as mainly teacher preparatory. These results may be seen in Table 41. It is also clear from Table 42 that the state colleges granted the majority of the bachelor's degrees of the respondents in this sample. While the modal group of individuals took their undergraduate degrees in education (33.8 percent) it is interesting to note that two thirds did not get their degrees in education.

It should be noted here that in the coding precedure for classifying area of study if an individual listed his major as English education, he was classified in education--likewise, for such listings as "the teaching of mathematics". When social science majors and humanities majors are added to the education majors, nearly 80 percent of the sample is accounted for. Only 9.1 percent came into the doctoral program of education via the natural sciences. These results may be seen in Table 43.

TABLE 41 - BACHELOR'S DEGREES BY TYPE OF INSTITUTION

Institution Type	Number	Of Total Percent
Liberal arts and general	55	2.7
Teacher preparatory	211	10.2
Liberal arts, general, and teacher preparatory	595	28.8
Professional and technical	17	0.8
Professional, technical, and teacher preparatory	54	2.6
Liberal arts and general with one or two professional schools	141	6.8
Liberal arts and general with three or more professional schools	919	44.5
No response or unclassifiable	75	3.5
Total	2067	99.9

TABLE 42 - BACHELOR'S DEGREES BY INSTITUTIONAL CONTROL

Institutional Control	Number	Of Total Percent
City or municipal	100	4.8
Church controlled	425	20.6
County government	1	0.0
Territorial government	0	
Federal government	6	0.3
Private	365	17.6
Proprietary	1	0.0
State government	1097	53.1
No response	72	3.5
Total	2067	99.9

TABLE 43 - BACHELOR'S DEGREE MAJOR

Major Area of Study	Number	Of Total Percent
Education	698	33.8
Biological Science	72	3.5
Physical Science	114	5.6
Social Science	516	25.0
Humanities	414	20.0
Technical or Vocational	183	8.8
Other	3	0.1
No response	67	3.2
Total	2067	100.0

TABLE 44 - PROPORTION OF SAMPLE EARNING MASTER'S DEGREES

Master's Degree	Number	Of Total Percent
Yes	1931	93.4
No	122	5.9

TABLE 45 - MASTER'S DEGREES BY TYPE OF INSTITUTION

Institution Type	Number	Of Total Percent
Liberal arts and general	22	1.1
Teacher preparatoty	121	5.8
Liberal arts, general, and teacher preparatory	192	9.3
Professional and technical	17	0.8
Professional, technical, and teacher preparatory	73	3.5
Liberal arts and general with one or two professional schools	67	3.2
Liberal arts and general with three or more professional schools	1414	68.4
No response	161	7.8
Total	2067	99.9

It is apparent that the graduate program of these individuals was seldom seen as a program leading directly to the doctorate. Table 44 indicates that 93.4 percent of these individuals took the master's degree, and only 5.9 percent went directly to the doctorate from the bachelor's degree. At the master's degree level the group as a whole showed a pronounced migration toward the large and complex institution with more than two-thirds of the group getting their degree from the complex university. At the same time there was a strong movement away from the church controlled schools into private colleges and universities, while the state institution's share of students remained unchanged. Only 7.6 percent receivedtheir master's degree from church related schools. The major fields at the master level show a pronounced movement toward education with nearly two-thirds of the group taking their degrees in this field. This is probably an underestimate since an additional 6 percent were working directly upon the doctorate at this point in their program, and these degrees were undoubtedly in education. These results are presented in Table 45, 46, and 47 respectively. Another finding of interest is reported in Table 48. These results indicated that it was rare indeed for an individual to take all of his degrees at the same institution. In fact the modal pattern was for each degree to be taken at a different institution. The positions held by these people immediately prior to entry into the doctoral program were, not unexpectedly, in education. Forty-eight percent held teaching positions at this time and an additional 33 percent held non-teaching positions in the field of education. It is quite likely that the 8.1 percent falling in the no response categories on this item may include a considerable number whose education was never terminated to take a position. (See Table 49).

This concludes the description of the sample and whila a summary is in order it is difficult to summarize all of the data that has been presented. Part of this difficulty is associated with a considerable amount of variance shown within the group on nearly every variable considered. The following points, however, seem worthy of mention:

TABLE 46 - MASTER DEGREE BY KIND OF INSTITUTIONAL CONTROL

Institution Control	Number	Of Total Percent
City or municipal	63	3.0
Church controlled	158	7.6
County government	0	0.0
Territorial government	4	0.2
Federal government	7	0.3
Private	579	28.0
Proporietary	11	0.5
State government	1094	52.9
No response or no degree	151	7.3
Total	2067	99.8

TABLE 47 - MASTER'S DEGREE MAJOR

Major Area of Study	Number	Of Total Percent
Education	1371	66.3
Biological Science	28	1.4
Physical Science	16	0.8
Social Science	238	11.5
Humanities	155	7.5
Technical or Vocational	67	3.2
Others	5	0.2
No response	187	9.0
Total	2067	99.9

TABLE 48 - CHANGE OF INSTITUTION

Change of Institution	Number	Of Total Percent
All degrees at the same institution	270	13.1
Master's and Doctors at same institution	476	23.0
Bachelor's and Master's at same institution	413	20.0
Bachelor's and Doctors at same institution	52	2.5
All at different institutions	789	38.2
No response	67	3.2
Total	2067	100.0

TABLE 49 - TYPE POSITION HELD PRIOR TO ENTRY INTO DOCTORAL PROGRAM

Title Of Position Prior to Entry	Number	Of Total Percent
Professional or managerial	169	8.2
Clerical and sales	11	0.5
Service	52	2.5
Agriculture	3	0.1
Skilled labor	5	0.2
Semi-skilled or unskilled labor	1	0.0
Education (teaching)	993	48.0
Education (non-teaching)	662	32.0
No response	171	8.3
Total	2067	99.8

1. The size of the sample, that is the number of people receiving the the doctorate in education in 1963-1964, had increased by 50 percent in number over the group studied five years ago. Although there has been a considerable increase in number of institutions having doctoral programs in education, the vast majority of the increase in production is accounted for by institutions enlarging existing programs. Those institutions now granting doctoral degrees in greater numbers, however, are in general not those institutions having very high levels of production, nor very low levels of production, in the earlier study. Rather, the increase is mostly attributed to institutions with an intermediate level of production five years ago, which have substantially enlarged their program in the intervening years.
2. The major fields or areas of specialization of the sample are largely characterized by their number and variety. Only by very gross classification procedures can the number of major fields be reduced to as few as fifteen. The most common fields are administration and guidance. Increases and decreases in production within the various majors over the last five years seem to reflect professional, governmental, and

foundational emphasis of recent years.

3. The average age of the sample is nearly thirty-nine years, reflecting no change since the earlier study, and the ratio of men to women remains four-to-one. The "modal" doctoral recipient is married, has two or three children, and chances are about fifty-fifty that his wife was employed during his doctoral program. His wife probably has a bachelor's degree, most likely in education.
4. The mythical "modal" graduate is more likely to have emerged from a rural or village community or a very large city than from a small town or small city. Neither his mother nor his father completed high school but his father probably has a job which is better than one would predict on the basis of education alone. It is quite unlikely that his mother was employed.
5. The educational career of the "modal" graduate probably led from a relatively small high school to an undergraduate program in a state college or university which emphasized teacher training. He took his degree in social science, humanities, or education, and became a teacher. After a few years he enrolled in a larger more complex state university and untertook a degree with a major in education. Following this he returned to his job, however, at this time quite often to a non-teaching position, and later entered a large institution to embark upon a doctoral program.

The next topic of interest in this study has to do with motives for entering the doctoral program, and this constitutes the focus of the next section of this report.

Motivations Leading to Entry Into Doctoral Programs

It is recognized that the motivational patterns underlying an individual's decision to enter a doctoral program are probably highly complex. The motivational patterns for groups of individuals could be even more complex, expecially when the extreme heterogeneity of this group of doctoral recipients on the number of variables already discussed is considered. Recognizing that this was likely to be a problem, certain conjectures were made prior to the design of the questionnaire. For example, is there a large group of people who desire to enter advanced graduate work while in their undergraduate program, or perhaps even before, but are unable to do so for a variety of reasons? Or do most people in general simply fail to consider the possibility of doctoral degrees until relatively far into their career? Does the decision to shoot for the doctoral degree precede or follow the decision about the area of specialization to pursue? Are individuals in general lured into programs by visions of positive rewards in the forms of intellectual stimulation, enrichment of cultural surroundings, increased status, higher salaries, and more exciting positions? Or are they trying to leave behind or escape insecure positions, unsatisfying work, skills perceived as inadequate or having no payoff, and the frustration of dead end positions? Who reinforces their consideration of the doctoral program? Who encourages them to take the big step and actually enter a doctoral program? What about opportunities? It is quite likely that a number of individuals never seriously considered entry into a doctoral program until someone suggested to them that a fellowship or an assistantship might be available. Are some individuals attracted into doctoral programs simply because of availability of near-by institutions offering such programs? Are the motives of these people strong? Is it necessary that they overcome numerous hurdles in order to begin the degree program? Is this common?

These are some of the questions that were raised and reflected in the design of the questionnaire. The basic assumptions about motivation, however, were these: The actual decision to enter the doctoral program is influenced by a complex of approach and avoidance factors, influential persons and opportunity.

The first data having a bearing on this question is the following: During what period of life was working toward a doctoral degree first considered? The results, shown in Table 50, indicate that it was rare indeed for an individual to consider a doctoral degree prior to college. Only 12 percent of those responding indicated consideration of such a goal during their undergraduate program. More decisions to enter the doctoral program were made during the masters program than at any other time. The same question was posed to the 1956-1958 graduates, and it is interesting to note that although "during the masters program" was the modal category in both cases, the proportion of people in it has been reduced from 31.5 percent to 23.8 percent. The largest increase in a category is during post bachelor's teaching. This category increased 5.8 percent to 13.6 percent. This would indicate that, while the present sample did not enter a doctoral program at an earlier age than the former sample, consideration was given to such an undertaking at an earlier stage in their career. In addition chi-square analysis indicatedindependence between degree groups with respect to this item ($p < .01$) and it would appear that the Ph.D. group considered the doctoral degree earlier in their career, and were more likely to consider such while in school than while teaching. (See Table 51)

With respect to the period of his life during which the respondent became interested in the field which become his specialization, the results of Table 52 indicate that his interest was most likely aroused in the school setting rather than the occupational setting. It appears that in general the decision about the

TABLE 50 - PERIOD OF LIFE DURING WHICH THE DOCTORAL DEGREE WAS FIRST CONSIDERED

Period	Number	Of Total Percent	Of Those Responding Percent
During high school	100	4.8	5.4
During undergraduate program	225	10.9	12.0
During post-bachelor's teaching	245	11.8	13.6
During other post-bachelor's work	99	4.8	5.3
During master's program	445	21.5	23.8
During post-master's teaching	353	17.1	18.9
During post-master's graduate study	257	12.4	13.8
During other post-master's work	135	6.5	7.2
No response	210	10.1	0.0
Total	2067	99.9	100.0

TABLE 51 - PERIOD OF LIFE DOCTORAL DEGREE WAS FIRST CONSIDERED VERSUS DEGREE

	Ed.D.		Ph.D.	
Period	Number	Percent	Number	Percent
During high school	55	4.1	45	6.4
During undergraduate program	128	9.5	96	13.6
During post-bachelor's teaching	175	13.0	78	11.0
During other post-bachelor's work	55	4.1	42	5.9
During master's program	282	20.9	162	22.9
During post-master's teaching	249	18.5	99	14.0
During post-master's graduate study	200	14.8	56	7.9
During other post-master's work	92	6.8	43	6.1
No response	111	8.3	85	12.0
Total	1347	100.0	706	99.8

the field of specialization occurred prior to the decision to earn a doctoral degree. Approximately 51 percent of the respondents had decided upon the area of specialization prior to the master's program, while only about 36 percent had decided to work toward a doctorate by this time. Chi-squared analysis again suggested independence of the two degree groups with respect to the time

TABLE 52 - PERIOD OF LIFE MAJOR FIELD WAS FIRST CONSIDERED

Period	Number	Ot Total Percent	Of Those Responding Percent
During high school	226	10.9	11.8
During undergraduate program	389	18.8	20.4
During post-bachelor's teaching	274	13.2	14.4
During other post-bachelor's work	91	4.4	4.8
During master's program	382	18.5	20.0
During post-master's teaching	230	11.1	12.0
During post-master's graduate study	208	10.1	10.9
During other post-master's work	109	5.3	5.7
No response	158	7.6	
Total	2067	99.9	100.0

TABLE 53 - PERIOD OF LIFE MAJOR FIELD WAS FIRST CONSIDERED VERSUS DEGREE

Period	Ed.D. Number	Ed.D. Percent	Ph.D. Number	Ph.D. Percent
During high school	164	4.1	58	6.4
During undergraduate program	234	9.5	154	13.6
During post-bachelor's teaching	189	13.0	83	11.0
During other post-bachelor's work	48	4.1	42	5.9
During master's program	239	20.9	140	22.9
During post-master's teaching	164	18.5	65	14.0
During post-master's graduate study	141	14.8	67	7.9
During other post-master's work	74	6.8	35	6.1
No response	94	8.2	62	12.1
Total	1347	99.9	706	99.9

at which they first considered their major ($p < .05$). These results which appear in Table 53, do not lend themselves to simple interpretation, however, it would appear that the Ph.D.'s tend to decide on the major either very early or very late, while the Ed.D.'s tend to group themselves in the middle categories. Since it was shown earlier that Ph.D.'s decide to work for a doctorate in general earlier than Ed.D.'s it would seem that Ph.D.'s more often may decide to work for the

TABLE 54 - PERIOD OF LIFE DURING WHICH MAJOR WAS FIRST CONSIDERED VERSUS MAJOR AND MINOR PRODUCING INSTITUTIONS

	Major Producing Institutions		Minor Producing Institutions	
	Number	Percent	Number	Percent
During high school	152	13.8	74	7.7
During undergraduate program	228	20.8	160	16.6
During post-bachelor's teaching	138	12.6	134	13.9
During other post-bachelor's work	44	4.0	47	4.9
During master's program	184	16.8	197	20.5
During post-master's teaching	122	11.1	107	11.1
During post-master's graduate study	102	9.3	104	10.8
During other post-master's work	57	5.2	52	5.4
No response	71	6.5	86	8.9
Total	1098	100.1	961	99.8

degree prior to their decision concerning the area of specialization. Interesting, but not particularly meaningful, results are shown in Table 54 indicating that those individuals obtaining their degrees from minor producing institutions tend to decide upon their areas of specialization significantly earlier than those graduating from major producing institutions ($p < .05$).[1]

The secion which follow report results from a particular section of the questionnaire that was designed to get at the personal motivation involved in the decision to enter the doctoral program. The rationale for this group of 28 items was as follows: It was hypothesized that the decision to undertake such a program was probably based upon a complex of approach-avoidance motives.

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[1] In general the use of major versus minor producing institutions as an independent variable did not prove to be a particularly productive choice compared to degree, major, length, community origin. The number of significant chi-squares between this variable and questionnaire item was so small that they undoubtedly could be the result of chance.

With this in mind, a set of statements was generated representing a wide range of possible motives. Each statement was then rewritten in two forms, one of which was positively stated and the other negatively stated. For example, "desire for greater professional mobility" is considered a positive statement--an approach motive. On the other hand, "fear of being locked in predoctoral place of employment" is considered to be negative or avoidance counter-part of the positive statement. In order to check statement reliability the statements were listed in scrambled orders and presented to two classes of doctoral students at Indiana University. These students were asked to perform two tasks: First they were requested to sort the statements according to whether or not each seemed to reflect a positive motive or a negative motive. Then they were requested to take each positive statement and locate its negative counter-part. Results were obtained from fifty-two doctoral students in education. The findings suggested that the statements could be classified as positive or negative with relative ease, but that pairing was much more difficult. Of the fourteen surviving pairs of items all were classified successfully on the positive-negative dimension by at least 90 percent of the subjects. The most unreliable of the statements was successfully matched with its counter-part by 75 percent of the subjects. The median reliability determined as percent of successful pairing was eighty-one. The objectives of this series of items were (1) to come up with an indication of extent to which each statement of motive was considered to be involved in the decision to enter a program, (2) a total approach and a total avoidance score. The results on the individual items are presented in Table 55 and 56. Table 55 lists the fourteen approach items together with the results on each category of importance. Table 56 presents the fourteen avoidance items together with the distribution of responses for each. The order in each table is the same. In other words, for

TABLE 55 - PERSONAL MOTIVATIONS - POSITIVE

	Highly important		Considerable important		Some importance		Little importance		No importance		No response	
	N	%	N	%	N	%	N	%	N	%	N	%
Attraction of new kinds of positions	511	24.7	557	27.9	567	25.4	201	9.7	174	8.4	98	4.7
Desire to become a better practitioner of your profession	950	46.0	624	30.2	290	14.0	61	3.0	61	3.0	81	3.9
Desire for greater professional mobility	601	29.1	653	31.6	425	20.6	154	7.4	162	7.8	72	3.5
Appeal of enhanced prestige associated with the doctorate	242	11.7	503	24.3	708	34.2	330	16.0	197	9.5	87	4.2
Desire to achieve maximum development of your academic talents and abilities	993	48.0	629	30.4	286	13.8	68	3.3	36	1.7	55	2.7
The need to keep up-to-date in your field	359	17.4	650	31.4	573	27.7	230	11.1	166	8.0	89	4.3
Appeal of certain techniques, procedures, and skills recently developed in your professional area	204	9.9	438	21.2	666	32.2	389	18.8	251	12.1	119	5.8
Stimulation of university associations and atmosphere	430	20.8	640	31.0	511	24.7	237	11.5	164	7.9	85	4.1
Opportunity for greater self fulfillment	1052	50.9	670	32.4	194	9.4	58	2.8	27	1.3	66	3.2
Desire to aid in the growth of the profession as a whole or some phase of it	480	23.2	737	35.6	528	25.5	149	7.2	79	3.8	93	4.5
Attraction of higher salaries accompanying the doctorate	265	12.8	385	18.6	429	20.8	320	15.5	560	27.1	107	5.2
A compelling sense of commitment to an institution or a cause	212	10.2	292	14.1	393	19.0	396	19.2	658	31.8	116	5.6
A certain fascination with the world of research and experiment	194	9.4	463	22.4	667	32.2	407	19.7	235	11.4	101	4.9
Desire to work with college age students	265	12.8	385	18.6	429	20.8	320	15.5	560	27.1	107	5.2

TABLE 56 - PERSONAL MOTIVATIONS - NEGATIVE

	Highly important		Considerable important		Some importance		Little importance		No importance		No response	
	N	%	N	%	N	%	N	%	N	%	N	%
Fustrations associated with previous place of employment	87	4.2	150	7.2	295	14.3	383	18.5	1028	49.7	124	6.0
Fear of general ineffectiveness in predoctoral position	61	3.0	142	6.9	296	14.3	500	24.2	936	45.3	132	6.4
Fear of being "locked in" at predoctoral place of employment	189	9.1	286	13.8	434	21.0	407	19.7	630	30.5	121	5.8
Concern about lack of status generally accorded your predoctoral position	115	5.6	241	11.6	449	21.7	550	26.6	606	29.3	106	5.1
Concern over the possibility of becoming "stale" in prodoctoral position	172	8.3	415	20.1	547	26.5	396	19.2	424	20.5	113	5.5
Insecurity of position without the degree	75	3.6	119	5.8	216	10.4	432	20.5	1113	53.8	121	5.8
A growing sense of inadequacy with predoctoral tools and skills	109	5.3	309	14.9	554	26.8	536	25.9	431	20.8	128	6.2
Lack of complete sense of cultural satisfactions associated with predoctoral position	140	6.8	271	13.1	423	20.5	469	22.7	633	30.6	131	6.3
Lack of self satisfaction derivable from predoctoral position	193	9.3	343	16.6	440	21.3	470	22.7	505	24.4	116	5.6
Feeling of nonacceptance in your profession	40	1.9	121	5.8	233	11.3	417	20.2	1127	54.5	129	6.2
Frustration associated with pre-program level of earnings	84	4.1	209	10.0	439	21.2	548	26.5	656	31.7	131	6.3
Desire to get away from the demands and complexity of predoctoral position	58	2.8	100	4.8	247	11.9	413	20.0	1116	54.0	133	6.4
Sense of inadequacy with your research abilities in your profession	128	6.2	336	16.2	515	24.9	449	24.1	470	22.7	119	5.8
Dissatisfaction associated with predoctoral teaching level (i.e., elementary, high school, etc.)	82	4.0	157	7.6	278	13.4	391	18.9	1021	49.4	138	6.7

statement number six in Table 55 there is a counter-part in Table 56 which is also number six. Eadh statement of motive was set up as a Likert-type item. Individuals were asked to respond on a weighted continuum of importance. If a statement was considered highly important respondents were requested to score the item with a one. If a particular item was considered of no importance it was scored five. Hence a low score for an item indicated a highly important consideration, and a high score indicated an item of little importance.

Even a cursory perusalof the responses to the approach and to the avoidance items in Tables 55 and 56,respectively,showsclearly that greater importance was attached to the approach items. With a theoretical mean of three for each item an expected mean for the total group of fourteen approach or avoidance items would be forty-two. The actual mean approach score for the total sample was 35.8, while the mean avoidance score for the total sample was 51.2. While it is tempting to interpret this result as indicating that the group as a whole was strongly motivated in a positive direction, it would not be wise to do so without reservations. It is entirely possible that this series of items in the questionnaire had entirely too much face validity. The approach-avoidance dimension built into the series is not particularly subtle. Hence, responses based on perception of the dimension would lead the respondent to accept the approach item and avoid the avoidance item. While this likelihood prevents firm conclusions on the extent to which the group as a whole was positively or negatively motivated, it is still possible to make comparison among the approach items and among the avoidance items. The most acceptable statement of motive for entering a doctoral program was "opportunity for greater self-fulfillment". The second most selected statement was "desire to achieve maximum development of your academic talents and abilities". The least acceptable of the positive motive statements is "a certain fascination with the world of research and experiment". This statement was so unacceptable that it is the only one of the approach motives considered less acceptable than the most accepted avoidance items. The second least acceptable of the approach motives was "appeal of certain techniques, procedures, and skills recently developed in their professional areas". It is possible to take the approach statements and sort them into two categories--those that are associated with self (e.g., opportunity for greater self-fulfillment), and those statements which are professionally, or perhaps outwardly, directed (e.g., desire to aid in the growth of the profession as a whole or some phase of it). When the statements are sorted in this way, it seems that the most acceptable statements were those which are self oriented. (See the last column of Tables 55 and 56 for ranking.) Of those self oriented statements which fall in the lower ranks "desire to work with college age students" was probably among the least acceptable, simply because it was inapplicable to all those individuals planning to work in the public schools. "Attraction of higher salaries accompanied by the doctorate" may involve the faulty assumption that higher salaries do accompany the doctorate. Hence, a reasonable summary and interpretation of these findings in Table 55 would seem to be that the positive motive underlying their decision to enter doctoral programs seemed to be more associated with things like self-sulfillment, professional mobility and development of talents and abilities, rather than with any specific desire to aid the profession, accquire professional skills, or procedures, or engage in research. To the respondents, professional education apparently does not seem to represent a positive attractive and dynamic area of activity in which these individuals wanted to participate. But rather, it seems to represent a means, or perhaps a setting within which the respondents pursued personal goals which may or may not be closely related to goals of the profession.

Table 56 indicates quite clearly that, while avoidance motives certainly did not dominate the group as a whole, that avoidance motives were involved in many cases. The most acceptable in the avoidance statements was "concern over the possibility of becoming stale in the predoctoral position". Ranking second was "lack of self-satisfaction derivable from predoctoral positions". "Fear of being locked in predoctoral places of employment" was third. Among the least acceptable of the avoidance statements were "feeling of non-acceptance in your profession", "sense of inadequacy with the research abilities", and "the fear of general ineffectiveness of predoctoral positions". The response patterns suggested that job dissatisfaction or perception of the job as a dead-end could drive individuals out of their positions into advanced graduate programs as a means of escape. It would seem in general that it is quite rare, however, for doctoral programs to be seen as solutions for feelings of inadequacy or ineffectiveness with respect to their job performance. This latter finding is not particularlly surprising, it is more likely to be success than lack of success that encourages one to pursue further work in a profession. It is undoubtedly successful practitioners in the field and students in the universities that are encouraged by professors and colleagues to continue their work.

Looking again at the paired relationship between Tables 55 and 56 it is possible to suggest further interpretation of motivational pattern. It is reasonable to hypothesize that if a positive statement or motive is considered highly important to the group as a whole its negative counter-part may also be seen as less objectionable. Hence, positive correlation between pairs on an acceptability continuum would be predicted. The results of such an analysis show a rank correlation of .31, indicating that a direction of the relationship is proper but not strong. For example, "desire to achieve maximum development of your academic talent abilities" was ranked second in importance by the respondents. The negative counter-part "concern over the possibility of becoming stale in predoctoral positions" was ranked first in importance. On the other hand the positive statement "desire to become a better practitioner of your profession" was ranked third in importance, but its negative counter-part "fear of general ineffectiveness in predoctoral positions" was uniformly rejected and ranked twelfth among the negative statements. This indicated, as was suggested earlier, that it is acceptable to enter doctoral programs to improve ones skills, but not if ones skills are inadequate.

Since it was possible to obtain for each individual in the sample a total score on the approach item and a total score on the avoidance item it was hypothesized that there might be some differences between sample subgroups on these scores. Considering the total scores as continuous variables, a one way analysis of variance was run for each independent variable. The results show that only the degree groups show a significant difference. Major fields, age, program length, community origins, and major versus minor producing institutions show similar patterns in the selection of motives on both the approach and avoidance dimensions in their rating of statements. The results for the degree group are shown in Tables 57 and 58. The results for both the approach and avoidance scores are significant at less than a .01 level and the direction of the differences seemsto be that the Ed.D.s in both cases are more accepting of the motive statements. In other words the Ed.D.s are not only more accepting of, or are more likely to consider, the positively stated motives, they are also more likely to consider the negative statements in their decision to enter the doctoral program. These results should be cautiously interpreted, however, in that later results seem to suggest that the Ph.D.s in general simply seem to

TABLE 57 - ANALYSIS OF VARIANCE OF APPROACH SCORES ACROSS DEGREE GROUPS

Source	Sum of squares	df	Mean square	F-ratio	Significance
Between groups	73442.85	1	73442.85	8.51	.01
Within groups	17509438.83	2028	8633.85		
Total	17582881.68	2029			

TABLE 58 - ANALYSIS OF VARIANCE OF AVOIDANCE SCORES ACROSS DEGREE GROUPS

Source	Sum of squares	df	Mean square	F-ratio	Significance
Between groups	754734.38	1	754734.38	9.33	.01
Within groups	162682095.22	2012			
Total	163436829.60	2013			

TABLE 59 - MEAN APPROACH AND AVOIDANCE SCORES OF DEGREE GROUPS

Degree	Approach score	Avoidance score
Ed.D.	34.83	42.93
Ph.D.	36.09	47.00

be somewhat more conservative in their ratings throughout the questionnaire. Hence, it may be unwise to make the superficial interpretation that the Ed.D.s are more positively motivated than the Ph.D.s.

While the above motives were undoubtedly influential in directing the individuals in the sample into the doctoral program, it is quite likely that some where in the decision-making process other people intervened to suggest that a doctoral program was a possible means of satisying their motives. That this is the case can be seen in Table 60, where on the average the respondents reported at least one person as having some influence on their decision to enter the doctoral program. Professional colleagues as a group were most often checked as influential, former professors were important, as was the spouse. Most frequently mentioned in the "most influential" category was some former professor, with spouse second, and professional colleague third. This item strongly suggests the importance of personal contact in the decision to undertake the program. These results further suggest that it is not other people in the class sense but particular individuals who are most influential. Professional colleagues is a class name, and this group is most often listed as influential but not nearly so often listed as most influential. There is in addition a considerable number of staunch individualists in the group who denied the influence of other individuals and elected instead to write in "self". In fact 10 percent made use of this response.[2] Those electing an Ed.D. degree seemed more often influenced by a professional colleague, but Ph.D.s more often considered colleagues "most" influential ($P < .01$). In addition the older group of graduates, as opposed to the younger group, indicated significantly greater influence by colleagues but more often wrote in "self" as having been the greatest influence. On the other hand the younger group was significantly more influenced by former professors, spouse, and parents. These results may be seen in Table 61 and 62.

In addition to the presence of the desire to enter a doctoral program and the presence of influential persons there must be in addition either opportunity or the means for undertaking the program, or both. It is quite likely the case that an offer of a scholarship, fellowship, or assistantship, etc. may lead

[2] It is important to note here that the last three entries in this table are "write-in" responses. Hence, the fact that two-hundred-seven individuals wrote in "self" should not be underestimated. In fact had it been included among the response alternatives it could well have been one of the most chosen responses.

TABLE 60 - INDIVIDUALS INFLUENCING DECISION TO ENTER DOCTORAL PROGRAM

	Influential	Percent	Most Influential	Percent	No Response	Percent
Professional colleague(s)	840	40.6	224	10.8	1003	48.5
Spouse	613	29.6	269	13.0	1184	57.3
Parents	243	11.6	48	2.3	1776	85.9
Other relatives	89	4.3	19	0.9	1958	94.7
Former professor(s)	629	30.4	394	19.1	1043	50.4
Employer	313	15.1	108	5.2	1645	79.6
Other						
Self	106	5.1	101	4.9	1860	90.0
Professor	30	1.4	49	2.4	1988	96.2
Friend	20	1.0	19	0.9	2028	98.1
Others	44	2.1	53	2.6	1970	95.3

TABLE 61 - INDIVIDUALS INFLUENCING DECISION TO ENTER DOCTORAL PROGRAM ACROSS DEGREE GROUPS

	Ed.D.				Ph.D.			
	Significant		Most Significant		Significant		Most Significant	
	N	%	N	%	N	%	N	%
Professional colleague	570	42.3	134	10.0	262	37.1	87	12.3
Spouse	412	30.6	181	13.4	199	28.2	85	12.0
Parents	165	12.2	34	2.5	77	10.9	13	1.8
Other relatives	67	5.0	13	1.0	21	3.0	6	0.8
Former professors	408	30.3	258	19.2	217	30.7	133	18.8
Employer	199	14.8	80	5.9	111	15.7	28	4.0
Other								
Self	70	5.2	61	4.5	34	5.0	37	5.2
Professor (named)	21	1.6	29	2.2	9	1.3	20	2.8
Friend	11	0.8	10	0.7	9	1.3	9	1.3
Others	20	1.5	36	2.7	24	3.4	17	2.4

TABLE 62 - INDIVIDUALS INFLUENCING DECISION TO ENTER DOCTORAL PROGRAM BY AGE GROUPS

	Younger				Older			
	Significant		Most Significant		Significant		Most Significant	
	N	%	N	%	N	%	N	%
Professional colleagues	218	37.1	78	10.3	394	42.6	96	10.4
Spouse	245	32.4	83	11.0	251	27.1	125	13.5
Parents	107	14.1	24	3.2	92	9.9	15	1.6
Other relatives	30	4.0	8	1.1	45	4.9	6	0.6
Former professors	259	34.2	179	23.6	241	26.1	146	15.8
Employer	111	14.7	36	4.8	149	16.1	58	6.3
Other								
Self	43	5.7	26	3.4	47	5.1	56	6.1
Professor (named)	12	1.6	15	2.0	15	1.6	23	2.5
Friend	7	0.9	3	0.4	10	1.1	11	1.2
Others	17	2.2	16	2.1	23	2.5	32	3.5

individuals to undertake advanced graduate study who otherwise might not have done so though the desire influence may have been present. In many cases the availability of some kind of subsidation is a necessary condition for undertaking such a program. Table 63 indicates which of these material factors were considered influential and most influential. The most commonlyselected financial source considered influential was personal savings, so designated by 26 percent of the responses. Next most influential were assistantships, followed by institutional fellowships, and, surprisingly, the G.I. Bill. It had been assumed that the G.I. Bill as a financial source would long have been exhaustedfor this particular group, but apparently this is not the case. In comparison to the earlier study however, where the G.I. Bill was checked as influential or most influential by 36 percent of the sample representing more than nine hundred individuals, this source of funds has seriously diminished in availability. Further comparisons

TABLE 63 - MATERIAL FACTORS ENABLING ENTRY INTO THE DOCTORAL PROGRAM

	Influential	Percent	Most Influential	Percent	No Response	Percent
NSF Fellowship	24	1.2	17	0.8	2026	98.0
NDEA Fellowship	39	1.9	46	2.2	1982	95.9
Institutional Fellowship	232	11.2	56	2.7	1779	86.1
Other Fellowship	77	3.7	93	4.5	1897	91.8
Assistantship	427	20.6	190	9.2	1450	70.1
Scholarship	102	4.9	26	1.2	1939	93.7
Leave with pay	155	7.5	86	4.2	1826	88.3
Gifts or inheritances	50	2.4	14	0.6	2003	96.9
NDEA Loan	118	5.7	9	0.4	1940	93.8
Institutional loan (i.e., the University)	67	3.2	4	0.2	1996	96.6
Bank or other financial agency loan	117	5.7	21	1.0	1929	93.3
Loan from friends, family etc.	127	6.1	30	1.4	1910	92.4
Savings	537	26.0	134	6.5	1396	67.5
Other*						
G.I. Bill		240	11.6			
Working spouse		145	7.0			
Concurrent employment		245	11.8			
Others		210	10.2			

*The responses under "other" cannot be separated into the "influential" or "most influential" categories in this case.

with the earlier study suggest that institutional fellowships and scholarships were considered influential by about the same proportion of the respondents. This would indicate that while probably more such scholarships and fellowships are available in the institutions, the proportion of total students subsidized in this way has not changed at all. Since the earlier study the only new financial resources that have arisen to replace the G.I. Bill are the NSF and NDEA fellowship programs, and the NDEA loan arrangement. Table 63 indicates that 253 individuals in the sample considered these sources as influential or most

TABLE 64 - MATERIAL FACTORS ENABLING ENTRY INTO THE DOCTORAL PROGARM ACROSS DEGREE GROUPS

	Ed.D.				Ph.D.			
	Influential		Most Influential		Influential		Most Influential	
	N	%	N	%	N	%	N	%
NSF Fellowship	13	1.0	13	1.0	11	1.6	4	0.6
NDEA Fellowship	26	1.9	20	1.5	13	1.8	26	3.7
Institutional Fellowship	158	11.7	35	2.6	72	10.2	19	2.7
Other Fellowship	47	3.5	48	3.6	30	4.2	44	6.2
Assistantship	267	19.8	103	7.6	156	22.1	84	11.9
Scholarship	59	4.4	15	1.1	40	5.7	11	1.6
Leave with pay	115	8.5	69	5.1	39	5.5	16	2.3
Gifts or ineritances	38	2.8	9	0.7	11	1.6	5	0.7
NDEA Loan	86	6.4	3	0.2	31	4.4	6	0.8
Institutional Loan	44	3.3	3	0.2	23	3.3	1	0.1
Bank or other Loan	78	5.8	16	1.2	37	5.2	5	0.7
Loan from family, friends, etc.	73	5.4	26	1.9	53	7.5	4	0.6
Savings	359	26.7	93	6.9	175	24.8	41	5.8
Other								
G.I. Gill	164	15.6			76	13.1		
Working Spouse	82	7.8			62	11.3		

influential, this number is far short of the number of the earlier study so considering the G.I. Bill. It is also interesting to note that while policies of leave with pay are generally considered to be more common among both colleges and public schools in recent years, the proportion of people indicating influence of leave with pay has not increased since the last study.

The relative influence of these material factors on those individuals who pursued the two degrees is reported in Table 64. These results indicate that NDEA fellowship, assistantships, scholarships, and loans from friends were in general considered more influential by Ph.D.'s; while leave with pay, and NDEA loans were considered more influential by the Ed.D.'s. Table 65 suggests that

TABLE 65 - MATERIAL FACTORS ENABLING ENTRY INTO THE DOCTORAL PROGRAM ACROSS AGE GROUPS

	Younger				Older			
	Influential		Most Influential		Influential		Most Influential	
	N	%	N	%	N	%	N	%
NSF Felloswhip	7	0.9	11	1.5	10	1.1	5	0.5
NDEA Fellowship	17	2.2	34	4.5	16	1.4	4	0.4
Institutional Fellowship	104	13.7	20	2.6	86	9.3	24	2.6
Other Fellowship	24	3.2	33	4.4	41	4.4	45	4.9
Assistantship	227	30.0	112	14.8	128	13.8	41	4.4
Scholarship	46	6.1	13	1.7	44	4.8	11	1.2
Leave with pay	27	3.6	7	0.9	105	11.4	65	7.0
Gifts or inheritances	22	2.9	5	0.7	22	2.4	9	1.0
NDEA Loan	63	8.3	5	0.7	34	3.7	3	0.3
Institutional Loan	34	4.5	3	0.4	21	2.3	1	0.1
Bank or other Loan	41	5.4	4	0.5	50	5.4	10	1.1
Loan from family, friends, etc.	59	7.8	10	1.3	46	5.0	12	1.3
Savings	193	25.5	39	5.2	243	26.3	66	7.1
Other								
G.I. Bill	144	22.4			68	10.1		
Working spouse	51	7.9			63	9.4		

NDEA fellowships were much more available to the younger group, as were assistantships, NDEA loans, and University loans. In the older group on the other hand significantly more depended on leave with pay.

The final dimension of motivation can be described as strength, an indication of which can be gained by looking at some of the obstacles necessary to the respondents to overcome in order to undertake their program. Questionnaire item simply asked if it was necessary to postpone the doctoral program, and if so, why? The results in Table 66 indicate that slightly over 40 percent felt that no postponement was involved in their entry to the program. This is a sizable minority considering the financial problems involved in undertaking such a program, the low pay associated with assistantships, and fellowships, the family readjustment

TABLE 66 - DELAY OF ENTRY INTO DOCTORAL PROGRAM - CAUSES

	Reason	%	Significant Reason	%	No Response	%
Lack of adequate finances	306	14.8	211	10.2	1550	75.0
Demands of employment	302	14.6	96	4.6	1669	80.7
Difficulty of making necessary family adjustments	174	8.4	47	2.3	1846	89.3
Health reasons-individual	17	0.8	3	0.1	2047	99.0
Health reasons-other member of family	26	1.2	8	0.4	2033	98.4
Lack of "leave" policy at place of employment	107	5.2	21	1.0	1939	93.8
No real postponement necessary	790	38.2	26	1.2	1251	60.5
Other	113	5.5	91	4.4	1863	90.1

necessary, etc., the fact that 40 percent apparently unhesitantly entered their program can be interpretated to suggest strong motivation. Of those who felt that a postponement was necessary the lack of adequate finances and demands of their positions accounted for the majority of the postponements. Many reasons unique to the individual are suggested by the unusually high response rates under "other". As one might expect it was among the older students that the feeling of the necessity of postponement was most pronounced. (See Table 67) Financial reasons, demands of employment, difficulty with family adjustment, health problems, and no leave policy were all listed by the older group as significant reasons, more so than among the younger group. The younger group indicated that family health, and "other" were most often the reasons for their postponement. The degree group also showed some evidence of independence ($P < .05$), but in this case independence is not attributable to incidence of postponement. Both the Ed.D. and the Ph.D. groups indicate about the same proportion of individuals postponing program entry. The Ed.D.'s, however, more often saw demands of employment and lack of leave policy as contributing reasons to postponement, while the Ph.D.'s more often referred to highly individualized reasons classifiable only under "other".

TABLE 67 - DELAY OF ENTRY INTO DOCTORAL PROGRAM - CAUSES BY AGE GROUP

	Younger				Older			
	Reason		Significant Reason		Reason		Significant Reason	
	N	%	N	%	N	%	N	%
No real postponement necessary	389	51.4	11	1.5	251	27.1	11	1.2
Lack of adequate finances	75	9.9	42	5.5	172	18.6	122	13.2
Demands of employment	50	6.6	9	1.2	200	21.6	67	7.2
Difficulty of making necessary family adjustments	26	3.4	2	0.3	123	13.3	41	4.4
Health reasons-personal	1	0.1	0	0.0	13	1.4	3	0.3
Health reasons-other members of family	4	0.5	2	0.3	17	1.8	6	0.6
Lack of "leave" policy at place of employment	20	2.6	2	0.3	72	7.8	17	1.8
Other	37	4.9	25	3.3	61	6.6	54	5.8

TABLE 68 - DELAY OF ENTRY INTO DOCTORAL PROGRAM - CAUSES BY DEGREE GROUP

	Ed.D.				Ph.D.			
	Reason		Significant Reason		Reason		Significant Reason	
	N	%	N	%	N	%	N	%
No real postponement necessary	513	38.1	15	1.1	271	38.4	11	1.6
Lack of adequate finances	195	14.5	143	10.6	109	15.4	66	9.3
Demands of employment	216	16.0	73	5.4	85	12.2	22	3.1
Difficulty of making necessary family adjustments	117	8.7	32	2.4	55	7.8	15	2.1
Health reasons-personal	12	0.9	1	0.1	5	0.7	2	0.3
Health reasons-other members of family	14	1.0	6	0.3	11	1.6	2	0.3
Lack of "leave" policy at place of employment	81	6.0	18	1.3	26	3.7	3	0.4
Other	56	4.2	54	4.0	56	7.9	37	5.2

The Doctoral Program: Description and Evaluation

The first part of this section deals with the factors considered in the decision to attend the particular university which granted the doctorate to the individuals in this sample. From the institutional point of view it is probably assumed, or at least hoped, that the students enroll in their programs because they are attracted to the particular kinds of program offered or the reputation of the university, the departments and individual staff members. Responses of graduates, while generally tending to confirm these notions, manifest a tendency to consider many other factors as well. The results of this item are presented in Table 69. (It should be noted that the categories "considered" and "most considered" are mutually exclusive and therefore can be added meaningfully.) "Availability of the particular kind of program required for personal goals" was the most checked consideration by the respondent. Fifty-four point three percent of the sample indicated that this was a consideration, and of this group 17.1 percent indicated that it was the most important single consideration in university choice. The next most important consideration was "reputation of the university", (53.9 percent) followed by proximity of the university (48.8 percent). In comparing these two factors however, it is interesting to note that proximity was the most important consideration for 13.7 percent of the sample, while reputation of the university was considered the most significant factor by 9.7 percent of the sample. Reputation of the university represents the modal category in the first column, factors considered, but ranks fifth among those factors most considered. Reputation of individual staff members ranks quite high and is checked in all by 46.5 percent of the sample. Previous graduate studies at the institutions also seem to be a very important consideration (38.9 percent). Apparently this last named consideration has a number of meanings according to informal comments included

TABLE 69 - FACTORS CONSIDERED IN CHOICE OF DOCTORAL INSTITUTION

	Considered	%	Most Considered	%	No Response	%
Availability of housing	220	10.6	11	0.5	1836	88.8
Opportunity for supplementary income provided by city	132	6.4	47	2.3	1888	91.3
Proximity of the university	726	35.1	283	13.7	1058	51.2
Similarity of departmental philosophy to personal values	433	20.9	82	4.0	1552	75.1
Availability of assistantships, fellowships, etc.	448	21.7	199	9.6	1420	68.7
Previous graduate study at this institution	600	29.0	204	9.9	1263	61.1
Nature of initial interviews	188	9.1	43	2.1	1836	88.8
Reputation of individual staff members	732	35.4	229	11.1	1106	53.5
Reputation of the university	913	44.2	200	9.7	954	46.2
Reputation of the department	651	31.5	142	6.9	1274	61.6
Attractiveness of the university setting	250	12.1	13	0.6	1804	87.3
Availability of the particular kind of program required for personal goals	770	37.2	354	17.1	943	45.6
Others						
Cost	27	1.3	28	1.4	2012	97.3
Influential friends	18	0.9	29	1.4	2020	97.7
Change in Environment	7	0.3	3	0.1	2057	99.5
Convenience	18	0.9	36	1.7	2013	97.4
Other	78	3.8	46	2.2	1943	94.0

in the questionnaire. For example, some of these comments suggest that a substantial number of students earned post-master's academic credit at an institution and this credit applied toward the doctorate only if the doctorate was taken at this institution. Others indicate that previous graduate study at the institution had enabled them to assess their own potentials and decide upon their likelihood of success in the doctoral program there. Others indicated that previous graduate study led to a kind of institutional commitment on their part, hence confounding this factor with the reputation factors.

TABLE 70 - DISTRIBUTIONS OF TIME SPENT ON TOTAL PROGRAM, COURSE WORK, THESIS, LANGUAGE REQUIREMENTS, AND IN RESIDENCE

	Entire Pro-gram	%	Course Work	%	Thesis	%	Lang.	%	Total Resi-dence	%
Less than 30 months	369	17.8	467	22.6	63	3.0	359	17.4	279	13.5
30 to 39 months	379	18.3	607	29.4	943	45.6	206	10.0	21	1.0
40 to 49 months	313	15.1	350	16.9	610	29.5	99	4.8	228	11.0
50 to 59 months	106	5.1	218	10.5	110	5.3	23	1.1	378	18.3
60 to 69 months	181	8.8	38	1.8	140	6.8	32	1.5	197	9.5
70 to 79 months	151	7.3	103	5.0	58	2.8	5	0.2	392	19.0
80 to 89 months	99	4.8	73	3.5	32	1.5	3	0.1	100	4.8
90 to 99 months	92	4.5	33	1.6	14	0.7	7	0.3	70	3.4
more than 99 months	182	8.8	48	2.3	24	1.2	1080[1]	52.2	295[2]	14.3
No response	195	9.4	130	6.3	73	3.5	253	12.2	107	5.2
Total	2067	99.9	2067	99.9	2067	99.9	2067	99.8	2067	100.0

1. No language requirement
2. No residence requirement

Rather surprisingly, availability of assistantships, fellowships, etc. was considered important by only about 31 percent of the sample. Considering recent trends in the direction of bigger and more lucrative fellowship programs, usually justified on the grounds that it will attract more good students, a real question can be raised concerning the effectiveness of this particular line of attack. If one assumes for a moment that the data here are perfectly valid, it would seem that moves in the direction of progam development and toward improving the reputation of the university and its staff would lead to more pay-off in terms of attractiveness to students. That is to say, it seems that it might be possible that with attractive programs and a reputable institution, students would put aside consideration of the financial problems and come in large numbers. There is always danger, however, in making such straight forward interpretations. There is quite likely some interaction between these factors. It is probably the reputable universities, having high quality faculty and a variety of good programs, that have the most funds available for assistantships, fellowships, etc. Hence, to choose the university upon these dimensions simply amounts to choosing an institution where the availability of assistantships and fellowships is not a problem.

Table 70 indicates the amount of time spent in the various phases of the program. As was indicated earlier in the report, the median program lasted four years. This represented a considerable reduction during the five year interval since the last study. However, it is possible that this is an underestimate of the true median, since nearly 10 percent of the sample failed to respond to this item. Voluntary comments from persons in this category suggest that in many cases their programs had started years ago, and worked at in piece-meal fashion often with very long intervals between periods of study. As a result computation of the actual length of program in terms of months was simply too arduous an undertaking. The distribution of length of time spent on course work is also heavily skewed in a direction of greater length. The medium length, however, seems to be around three years with about two thirds of the sample completing their course work by the end of four years. If a doctoral program is considered as having two phases - that devoted to course work, and that devoted to writing of the dissertation - it is interesting to note that the thesis seems to have taken more time than the course work. This undoubtedly reflects to a large extent the very common practice of writing the dissertation after leaving the university. Nearly two-thirds of the sample required between thirty and forty-nine months to complete their thesis, while only 3 percent were able to finish under two and a half years. Only 35.4 percent of the sample indicated that they had fulfilled language requirements. Of this group nearly half fulfilled the requirements in less than thirty months. The final column of Table 70, total time in residence, literally defies meaningful interpretation and according to results the modal category is

TABLE 71 - INCIDENCE OF FULL - VERSUS PART-TIME PROGRAMS

	Number	Percent
Entirely as a full-time student	406	19.6
Mostly as a full-time student	541	26.2
Mostly as a part-time student	570	27.6
Entirely as a part-time student	530	25.6
No response	20	1.0
Total	2067	100.0

TABLE 72 - KINDS OF PART-TIME PROGRAMS

	Ways undertaken	%	Description	%	No Response	%
Question inapplicable, mostly or entirely full-time	388	18.8	46	2.2	1633	79.0
Summers	514	24.9	150	7.2	1403	67.9
Evenings	385	18.6	223	10.8	1459	70.6
Part-time days	291	14.1	114	5.5	1662	80.4
Off campus centers	69	3.3	8	0.4	1990	96.3
Correspondence	12	0.6	1	0.0	2054	99.4
Other	47	2.3	10	0.5	2010	97.2

TABLE 73 - WAYS IN WHICH RESIDENCE REQUIREMENTS WERE MET

	Ways fulfilled	%	Description	%	No Response	%
No residence requirement	191	9.2	1	0.0	1875	90.7
Summers	551	26.6	6	0.3	1510	73.0
Evenings	228	11.0	6	0.3	1833	88.7
Part-time days	251	12.1	4	0.2	1812	87.7
Full-time during regular academic sessions	778	37.6				
No response	68	3.3				

seventy to seventy-nine months. If we should define residency in this case as full-time on campus studying, this result is absurd. Two possibilities suggest themselves. One is the growing tendency of institutions to change from residency defined in terms of full-time study for a specified length of time to a definition in terms of hours. The other possible explanation is that the respondent simply answered this question in terms of time spent in their program at the institution. In other words, residency simply meant to them the time spent at the university. Somewhat more light is shed on this question by the data in Table 71. These data indicate that it was rare indeed for an individual to carry out his doctoral program entirely as a full-time student. On the other hand 25.6 percent of the sample carried out their program entirely as part-time students, and more than 50 percent engaged in some combination of full and part-time study. Of these people who undertook their program as part-time students, the largest single group took their work during the summer. This group comprised approximately one third of the total sample and more than 40 percent of the part-time students. The next largest group consisted of evening students and constituted nearly 30 percent of the group. Part-time day students comprised an additional 20 percent. These data may be seen in Table 72.

The relaxation of institutional regulations on lengthy periods of residency is quite apparent in Table 73. Only 37.6 percent of the total sample indicated that their residency was fulfilled as full-time students during regular academic sessions. More than a quarter of the students were able to fulfill their residency requirements by summer school attendance. An additional 11 percent were able to do so via evening school, and 12.1 percent were able to complete their requirements as part-time day students. The considerable descrepancy between the 9.2 percent indicating no residency requirements in this table and the 14.3 percent indicating the same thing in Table 70 further suggests that the respondents simply may not know of what the residence requirements of their institution consist.

It was indicated earlier in the report that the Ph.D.'s in general spent significantly less time in their program than was true of the Ed.D.'s. Not unexpectedly then, the same is true for the various sub-phases within the program. With respect to time devoted to course work the Ed.D.'s in general seemed either to finish this phase of the program relatively quickly or to draw out this stage of program over a very long period of time. The Ph.D.'s on the other hand seemed to occupy the intermediate positions on the distribution of time. Overall, there is a significant difference in the mean length of time devoted to course work favoring the Ph.D. ($p < .05$). With respect to the time spent on the thesis no clear differnces emerged between the degrees, and for the languages, the chi-squared analysis simply confirmed the language requirement as the most general distinction between the two degrees. It is interesting to note, however, that nearly three hundred of the Ed.D. candidates indicated that they did in fact fulfill some kind of language requirements. Hence, the general rule is far from universal. The Ph.D.'s significantly more often than the Ed.D.'s undertook their program on a full-time or mostly on a full-time basis ($p < .01$). These results may be seen in Table 74 and 75.

While the younger group as opposed to the older group tended to complete their course work more quickly in general ($p < .001$) as in the case of the degree groups, this result is due to their monoply of the intermediate positions of the distribution. There is no difference between the age group in the category "less than 30 months". (See Table 76.) Precisely the same interpretation can be made of the distributions of the older versus the younger groups on time spent on the thesis. (See Table 77.) In addition, the younger group differed from the older group ($p < .001$) on time spent in residence. Inspection of Table 78 indicates, however, that most of difference is accounted for by the first category "less than

30 months",indicating that the older group was significantly more likely to undertake their programs as full-time students or mostly full-time. (See Table 78.)

Whether or not the respondents knew the institutional residence requirements, or knew precisely when they were in residence, they quite freely responded to the item requesting information about how the residency was financed. These results are in Table 79. These data indicate the most common source of support was an assistantship or other position in the university. Slightly more than 40 percent of the sample indicated that this represented a source of funds to them during residency, and 16.2 percent indicated that this was the most important source of finances during this time. Thirty-six percent of the sample apparently made use of savings during this time, but only 7.8 percent suggested this as the most important source of funds. More than a quarter of the sample held scholarships, fellowships or some other award during this period, and nearly a quarter indicated that spouses earnings also contributed to finance this period. The G.I. Bill apparently was still available to nearly 14 percent, and leave with pay was available to an additional 11 percent. While in residence the most common variety of housing was in off-campus apartment or room. (See Table 82.) Next most common and involving nearly 20 percent of the sample was a house owned by the student.

The picture which seems to be emerging here of the modal doctoral student has a number of interesting dimensions. He selects the institution at which he receives his doctorate on the basis of availability of a particular kind of program he is interested in pursuing, with some consideration here as to the reputation of the university and particular staff members, but with a great deal of consideration given to convenience of the institution. In general the doctoral program required about four years of college, exclusive of the master's program. Within this four years a somewhat greater amount of time was spent on the thesis than was devoted

TABLE 74 - DISTRIBUTION OF TIME SPENT ON COURSE WORK AND THESIS BY DEGREE GROUPS

	Course work				Thesis			
	Ed.D.		Ph.D.		Ed.D.		Ph.D.	
	N	%	N	%	N	%	N	%
Less than 30 months	320	23.7	141	20.0	40	3.0	23	3.3
30 to 39 months	366	27.2	239	33.8	620	46.0	316	44.7
40 to 49 months	214	15.9	133	18.8	384	28.5	223	31.5
50 to 59 months	133	9.9	85	12.0	77	5.7	33	4.7
67 to 69 months	29	2.1	9	1.3	86	6.4	52	7.4
70 to 79 months	77	5.7	26	3.7	42	3.1	15	2.1
80 to 89 months	49	3.6	22	3.1	19	1.4	13	1.8
90 to 99 months	24	1.8	9	1.3	10	0.7	4	0.6
More than 99 months	40	3.0	8	1.1	20	1.5	4	0.6
No response	95	7.1	34	4.8	49	3.6	23	3.3
Total	1347	100.0	706	99.9	1347	99.9	706	100.0

TABLE 75 - INCIDENCE OF FULL VERSUS PART-TIME PROGRAMS BY DEGREE

	Ed.D.		Ph.D.	
	N	%	N	%
Entirely as full-time student	254	18.9	146	20.7
Mostly as full-time student	334	24.8	204	28.9
Mostly as part-time student	383	28.4	184	26.1
Entirely as part-time student	365	27.1	164	23.2
No response	11	0.8	8	1.1
Total	1347	100.0	706	100.0

to course work. The vast majority of his program was undertaken on a part-time basis during the summer and in evenings. And sometime during the program he left his job or took leave for full-time study. During this time he held an assistantship, scholarship, fellowship or some other kind of university position to help defray his expenses. Quite often this was supplemented by the earnings of his wife, and very often by personal savings. Leave with pay was not uncommon, and a surprising number still had not exhausted the G.I. Bill. During the residency the

TABLE 76 - DISTRIBUTION OF TIME SPENT ON COURSE WORK AND THESIS BY AGE GROUPS

	Course work				Thesis			
	Younger		Older		Younger		Older	
	N	%	N	%	N	%	N	%
Less than 30 months	165	21.8	211	22.8	25	3.3	26	2.8
30 to 39 months	285	37.6	221	23.9	395	52.2	374	40.4
40 to 49 months	134	17.7	155	16.8	220	29.1	273	29.5
50 to 59 months	77	10.2	103	11.1	33	4.3	55	5.9
67 to 69 months	12	1.6	14	1.5	40	5.3	75	8.1
70 to 79 months	30	4.0	54	5.8	10	1.3	36	3.9
80 to 89 months	14	1.8	38	4.1	6	0.8	19	2.1
90 to 99 months	5	0.7	20	2.2	2	0.3	11	1.2
More than 99 months	2	0.3	34	3.7	2	0.3	20	2.2
No response	33	4.3	75	8.1	24	3.2	36	3.9
Total	757	100.0	925	100.0	757	100.1	925	100.0

TABLE 77 - TIME SPENT IN RESIDENCE BY AGE GROUPS

	Younger		Older	
	N	%	N	%
No resident requirement	61	8.1	160	17.3
Less than 5 months	4	0.5	12	1.3
5 to 9 months	56	7.4	121	13.1
10 to 14 months	107	14.1	195	21.1
15 to 19 months	70	9.2	91	9.8
20 to 24 months	204	26.9	122	13.2
25 to 29 months	59	7.8	30	3.2
30 to 34 months	34	4.5	18	1.9
Over 34 months	129	17.0	116	12.5
No response	33	4.4	60	6.5
Total	757	99.9	925	99.9

student and his family lived in a rented house or apartment off-campus, although there was some likelihood that he simply maintained his origional self-owned home and commuted.

TABLE 78 - INCIDENCE OF FULL VERSUS PART-TIME PROGRAMS BY AGE

	Younger		Older	
	N	%	N	%
Entirely as a full-time student	217	28.7	126	13.6
Mostly as a full-time student	227	30.0	213	23.0
Mostly as a part-time student	173	22.8	279	30.2
Entirely as a part-time student	132	17.4	298	32.2
No response	8	1.1	9	1.0
Total	757	100.0	925	100.0

TABLE 79 - SOURCES OF FINANCE DURING RESIDENCY

	Important	%	Most Important	%	No Response	%
Scholarship, fellowship or award	316	15.3	241	11.6	1510	73.0
Assistantship or other position in the university	496	24.0	334	16.2	1237	59.8
Leave with pay	101	4.9	125	6.0	1841	89.0
G.I. Bill	202	9.8	85	4.1	1780	86.1
Loans	303	14.6	46	2.2	1718	83.1
Savings	584	28.2	161	7.8	1322	64.0
Earnings of spouse	275	13.3	236	11.4	1556	75.3
Teaching outside university	125	6.0	77	3.7	1865	90.2
Other work outside university	159	7.7	62	3.0	1846	89.3
Private income	15	0.7	15	0.8	2037	98.5
Other	107	5.2	57	2.8	1903	92.1

Other insights can be gained into the problem of financing the residency by looking at the interaction of these sources of thought with the two independent variables of age and degree. The findings with respect to degree indicate that the Ph.D. is significantly more likely to have been awarded a scholarship or fellowship than the Ed.D. Assistantships, likewise are more likely to go to the Ed.D., and significantlyso. The Ed.D.'s are more likely to finance their residency while on paid leave, but the two degree groups are about equally likely to have

TABLE 80 - SOURCE OF FINANCE DURING RESIDENCY BY AGE GROUPS

	Younger				Older			
	Important		Most Important		Important		Most Important	
	N	%	N	%	N	%	N	%
Scholarship, fellowship, or award	139	18.4	113	14.9	130	14.1	86	9.3
Assistantship or other position in the university	218	28.8	196	25.9	171	18.5	78	8.4
Leave with pay	17	2.2	17	2.2	68	7.4	87	9.4
G.I. Bill	127	16.8	55	7.3	49	5.3	22	2.4
Loans	154	20.3	9	1.2	104	11.2	21	2.3
Savings	242	32.0	43	5.7	220	23.8	85	9.2
Earning of spouse	116	15.3	101	13.3	113	12.2	90	9.7
Teaching outside university	43	5.7	19	2.5	57	6.2	48	5.2
Other work outside university	72	9.5	21	2.8	58	6.3	31	3.4
Private income	5	0.7	2	0.3	7	0.8	11	1.2
Other	39	5.2	17	2.2	45	4.9	35	3.8

TABLE 81 - SOURCES OF FINANCE DURING RESIDENCY BY DEGREE GROUPS

	Ed.D.				Ph.D.			
	Important		Most Important		Important		Most Important	
	N	%	N	%	N	%	N	%
Scholarship, fellowship, or award	185	13.7	140	10.4	128	18.1	100	14.2
Assistantship or other position in the university	311	23.1	186	13.8	179	25.4	145	20.5
Leave with pay	78	5.8	89	6.6	22	3.1	35	5.0
G.I. Bill	124	9.2	65	4.8	74	10.5	19	2.7
Loans	192	14.3	32	2.4	109	15.4	13	1.8
Savings	374	27.8	121	9.0	208	29.5	38	5.4
Earnings of spouse	170	12.6	155	11.5	102	14.4	80	11.3
Teaching outside university	84	6.2	56	4.2	41	5.8	20	2.8
Other work outside university	101	7.5	39	2.9	58	8.2	22	3.1
Private income	7	0.5	9	0.7	8	1.1	6	0.8
Other	70	5.2	37	2.7	36	5.1	20	2.8

made use of the G.I. Bill. A significant chi-square did result on the G.I. Bill however, but the significance is to be attributed to the fact that the Ph.D.'s more often checked it as a source of finance while the Ed.D.'s more often checked

TABLE 82 - HOUSING DURING RESIDENCY

	Utilized	%	Most Utilized	%	No Response	%
Residence hall	124	6.0	114	5.5	1829	88.5
University apartments	87	4.2	179	8.6	1801	87.1
Low rent university housing (e.g., temporary building, etc.)	59	2.8	99	4.8	1909	92.4
Rented apartment or room off campus	255	12.3	362	17.5	1450	70.1
Trailer (owned)	11	0.5	16	0.8	2040	98.7
Trailer (rented)	10	0.5	4	0.2	2053	99.3
House (owned)	105	5.1	303	14.6	1659	80.3
House (rented)	122	5.9	195	9.4	1750	84.7
Housing rent free for services	15	0.7	22	1.1	2030	98.2
Other	41	2.0	30	1.4	1996	96.6

it as the main source of finance. The age variable indicates again greater likelihood that the younger student as opposed to the older is more likely to hold a fellowship or scholarship. He is also much more likely to hold an assistantship, and significantly less likely to be on paid leave. He is signifcantly more likely than his older counter-part to be on the G.I. Bill, and he is more likely to borrow money to finance his residency. In addition, a younger candidate is more likely to use his savings, as well as depend upon his wife as a financial resource. What these results seem to suggest is that the younger - older variable does in fact split the sample very meaningfully. These groups are quite different. On the one hand, there seems to be the financially secure older person working through his degree program at a leisurely pace on a part-time basis. He owns his own home and the part-time aspect of the program presents no substantial drain on his resources. When and if he decides to go into residencey, he either takes leave with pay or manages to support himself in some other way without drawing heavily even upon his savings. Members of the younger group apparently attempt to get through their program on a kind of crash basis. They leave their jobs, and drawing upon a variety of financial resources, try to complete the degree before all are exhausted. The results in Table 80 clearly indicate a stronger dependence on not only a greater variety of financial resources, but also a greater dependence upon each category of these resources than is true in the case of the older group.

At this point we turn our attention to the evaluation by the respondents by certain rather standard dimensions of doctoral programs. In all there are twenty-nine such dimensions posed to the sample for their evaluation. The format which is followed in this section is as follows: First the question that appears in the questionnaire is stated. Then the results are presented together with the data for the total group and with respect to the two independent variables of age and degree.

Before reporting on each individual item, however, some of the general results for this section should be noted. First, the evaluations given each dimensior considered were highly positive and heavily skewed toward the negative end of the continuum. Although this is uniformly true across all items there do exist rather striking differences in the distributions as one looks from item to item. In addition, the relative incidence of responses on the negative side may in the long run be more important for the interpretative purposes than the incidence of positive responses. It should be remembered that these people recently completed, successfully, a doctoral program which in many cases had stretched over a number or years and had literally dominated the lives of the respondent and his family for a considerable length of time. It would be unreasonable to expect them at this point to engage in a great deal of negative criticism of the program they had pursued or the institution that conferred their degree. In some sense to ask them to criticize their institution or program is to ask them to criticize themselves and they are not likely to do so. At the moment it seems that these recent graduates feel quite good toward their program and toward themselves.

1. In interviews prior to the beginning of the doctoral program, how complete was the information given you on assistantships, course requirements, housing, loans, time required, ect.?

The results of this item are presented in Table 83 and indicate that approximately 42 percent felt that they had been adequately informed concerning these matters. A substantial group, constituting approximately a quarter of the sample, indicated some dissatisfaction with the completeness of their information. The age groups differed significantly in their feelings about the completeness of information ($p < .01$), with the younger group in general feeling considerably less well informed than the older group. Degree groups did not differ in their responses to this item. (See Tables 83 and 84.)

2. How would you rate the policy of admission at your institution?

The graduates were asked to respond to this item on a continuum of selectivity. The results in the table clearly indicate that they perceived themselves as members of a highly select group. Nearly two thirds of the total sample indicated that they felt that the admission policy of their institution was either rather selective or highly selective. The age groups again differed significantly ($p < .001$), and the direction of the difference seems to indicate that the younger group in general was much less convinced of the selectivity of the admission policy than was the older group. The Ed.D.'s and the Ph.D.'s also differed significantly ($p < .001$) with the Ph.D.'s considerably less impressed with the selectivity of the admissions policy. (See Tables 85 and 86.)

3. In comparison to doctoral students with fields outside of education, how would you rate the general caliber of education doctoral students in their institution?

TABLE 83 - INITIAL INTERVIEWS: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total[1]	
	N	%	N	%	N	%
Extremely complete	230	17.1	102	14.4	333	16.1
Of considerable completness	376	27.9	165	23.4	547	26.5
Moderately complete	326	24.2	191	27.1	520	25.2
Rather incomplete	171	12.7	100	14.2	273	13.2
Decidedly incomplete	137	10.2	84	11.9	223	10.8
Item inapplicable	94	7.0	61	8.6	155	7.5
No response	13	1.0	3	0.4	16	0.8
Total	1347	100.0	706	100.0	2067	100.1

TABLE 84 - INITIAL INTERVIEWS: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Extremely complete	115	15.2	157	17.0
Of considerable completeness	197	26.0	232	25.1
Moderately complete	208	27.5	215	23.2
Rather incomplete	121	16.0	117	12.6
Decidedly incomplete	71	9.4	107	11.6
Item inapplicable	44	5.8	83	9.0
No response	1	0.1	14	1.5
Total	757	100.0	925	100.0

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[1] The "total" part of this table and all of those in this section on evaluation of program dimensions is not simply the sum of the Ed.D. and Ph.D. tables. The tabulation by degree and the total tabulation were done independently. Fourteen individuals were unclassified by degree, and hence, were not included in the degree tabulation, but were included in the total. Therefore, the "N" column of the "total" group will exceed the sum of the "N" columns for the two degree by fourteen.

TABLE 85 - ADMISSION STANDARDS: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Highly selective	352	26.1	157	22.2	512	24.8
Rather selective	661	49.1	337	47.7	1005	48.6
Somewhat selective	267	19.8	164	23.2	433	20.9
Rather unselective	39	2.9	27	3.8	66	3.2
Very unselective	7	0.5	5	0.7	12	0.6
Item inapplicable	10	0.7	9	1.3	19	0.9
No response	11	0.8	7	1.0	20	1.0
Total	1347	99.9	706	99.9	2067	100.0

TABLE 86 - ADMISSIONS STANDARDS: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Highly selective	172	22.7	249	26.9
Rather selective	353	46.6	456	49.3
Somewhat selective	170	22.5	184	19.9
Rather unselective	40	5.3	16	1.7
Very unselective	8	1.1	4	0.4
Item inapplicable	8	1.1	6	0.6
No response	6	0.8	10	1.1
Total	757	100.1	925	99.9

In spite of the perceived selectivity of admissions policy, respondents were much less confident of the caliber of students accepted under such an admission policy. Nearly 22 percent, however, did indicate that they saw the general caliber of doctoral students in their institution as superior to other doctoral students at that institution. Again the age groups differed in their ratings upon this item. The younger students again tended to rate lower on this item than was the case of the older students. The Ph.D. and Ed.D. groups are independent to this variable ($p < .001$), but the results are not so clear cut. Both groups distributed their ratings about as expected in the clearly superior category, the Ph.D.'s less often checked the usually superior category, but most of the chi-square is accounted for in the "often inferior" category. With respect to this category the Ph.D.'s differed markedly from the Ed.D.'s.

4. In terms of appropriateness to your professional interest at the present time the course work generally seems to have been:

A continuum for this item is one of appropriateness to professional interest. The general results of both groups again indicate pronounced positive feelings on this item with only about 6½ percent of the total group suggesting inappropriatness. Chi-squared analysis again indicated independence of the age group and reconfirmed the tendency of the younger group to use more conservative ratings. Degree groups, however, did not differ on this particular item.

5. In terms of the relative number of courses required in your major area within education and outside your major area, the proportion seemed to be characterized by:

The continuum in this case is one of balance, from overemphasis on the major area to overemphasis on courses outside the major area. The general results indicate a sharply peaked distribution of responses over the five categories with nearly three quarters of the total responding in the middle category which was defined as "proper balance". Chi-squared analysis shows independence of the age groups (p< .01). On this occasion, however, the results suggest that the older group is more likely to have complaints about improper balance.

6. What degrees of freedom and self-direction were generally allowed by the classroom procedures encountered during their course work?

The results of the total sample again indicate no general dissatisfaction with this particular dimension of their program. About 50 percent rated their amount of freedom and self-direction in class as considerable or great, while only

TABLE 87 - PERCEIVED CALIBER OF EDUCATION DOCTORAL STUDENTS: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Clearly superior	79	5.9	35	5.0	115	5.6
Usually superior	234	17.4	99	14.0	336	16.2
About the same	826	61.3	419	59.3	1253	60.6
Often inferior	111	8.2	111	15.7	224	10.8
Clearly inferior	10	0.7	10	1.4	20	1.0
Item inapplicable	58	4.3	20	2.8	78	3.8
No response	29	2.2	12	1.7	41	2.0
Total	1347	100.0	706	99.9	2067	100.0

TABLE 88 - PERCEIVED CALIBER OF EDUCATION DOCTORAL STUDENT: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Clearly superior	30	4.0	62	6.7
Usually superior	109	14.4	163	17.6
About the same	478	63.1	546	59.0
Often inferior	96	12.7	91	9.8
Clearly inferior	15	2.0	4	0.4
Item inapplicable	18	2.4	43	4.6
No response	11	1.5	16	1.7
Total	757	100.1	925	99.8

ten percent suggested that they had little to none. The age groups and degree groups both were found to be independent at the 1 percent level of significance. The results for the age group indicate that most of the independence is accounted for by "the great amount" category where the young group made considerably more use of the category. In a like manner the Ph.D.'s were considerably more likely than the Ed.D.'s to rate their amount of freedom and self-direction as considerable or great.

TABLE 89 - APPROPRIATENESS OF COURSE WORK:
TOTAL GROUP AND BY DEGREES

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Entirely inappropriate	25	1.9	14	2.0	39	1.9
Rather inappropriate	59	4.4	36	5.1	96	4.6
Moderately appropriate	293	21.8	179	25.3	476	23.0
Definitely appropriate	623	46.3	296	42.0	925	44.8
Extremely appropriate	334	24.8	174	24.6	511	24.7
Item inapplicable	10	0.7	5	0.7	15	0.7
No response	3	0.2	2	0.3	5	0.2
Total	1347	100.1	706	100.0	2067	99.9

TABLE 90 - APPROPRIATENESS OF COURSE WORK:
BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Entirely inappropriate	18	2.4	18	1.9
Rather inappropriate	34	4.5	45	4.9
Moderately appropriate	161	21.3	235	25.4
Definitely appropriate	358	47.3	387	41.8
Extremely appropriate	183	24.2	230	24.9
Item inapplicable	3	0.4	7	0.8
No response	0	0.0	3	0.3
Total	757	100.1	925	100.0

7. In how many courses in your total program did you experience instruction which you would describe as superior?

Clearly the distribution of responses over categories on this item is much more flattened than is the case for most items in the series. It would not seem to be unreasonable to interpret the results of this item as reflecting considerable negative feelings about the quality of instruction. About 40 percent of the sample felt that they had encountered superior instruction in most all courses. Sixty percent on the other hand felt that they encountered superior instruction in half

TABLE 91 - BALANCE OF COURSE WORK EMPHASIS: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Great overemphasis on the major area	34	2.5	12	1.7	46	2.2
Overemphasis on the major area	116	8.6	53	7.5	171	8.3
Proper balance	1000	74.2	515	72.9	1525	73.8
Overemphasis on courses outside the major area	114	8.5	54	7.6	170	8.2
Great overemphasis on courses outside the major area	11	0.8	15	2.1	26	1.2
Item inapplicable	67	5.0	49	6.9	116	5.6
No response	5	0.4	8	1.1	13	0.6
Total	1347	100.0	706	99.8	2067	99.9

TABLE 92 - BALANCE OF COURSE WORK EMPHASIS: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Great overemphasis on the major area	12	1.6	28	3.0
Overemphasis on the major area	60	7.9	85	9.2
Proper balance	565	74.6	674	72.9
Overemphasis on courses outside the major area	56	7.4	85	9.2
Great overemphasis on courses outside the major area	11	1.5	9	1.0
Item inapplicable	51	6.7	35	3.8
No response	2	0.3	9	1.0
Total	757	100.1	925	100.0

or less of their courses. The younger group apparently encountered significantly less superior instruction than was true in the case of the older group, as evidenced by independence of the two age groups ($p < .001$). In a like manner the

TABLE 93 - FREEDOM OF COURSE WORK CHOICE: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Practically none	23	1.7	10	1.4	33	1.6
Very little	100	7.4	67	9.5	167	8.1
A moderate amount	388	28.8	193	27.3	589	28.5
A considerable amount	556	41.3	268	38.0	829	40.1
A great amount	267	19.8	151	21.4	419	20.3
Item inapplicable	11	0.8	10	1.4	21	1.0
No response	2	0.1	7	1.0	9	0.4
Total	1347	99.9	706	100.0	2067	100.0

TABLE 94 - FREEDOM OF COURSE WORK CHOICE: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Practically none	13	1.7	11	1.2
Very little	65	8.6	78	8.4
A moderate amount	195	25.8	275	29.7
A considerable amount	294	38.8	380	41.1
A great amount	178	23.5	170	18.4
Item inapplicable	8	1.1	7	0.8
No response	4	0.5	4	0.4
Total	757	100.0	925	100.0

degree groups are shown to be independent by chi-squared analysis, although the independence is not quite as pronounced ($p < .05$). The direction of the difference is the same however with the Ph.D.'s in general seeing themselves as encountering less instruction which they would describe as superior.

8. Of the instruction which you would describe as superior, how much of it was in your major field as compared to other areas?

The overall results of this item suggest that in general the individuals in the sample were more pleased with their instruction in their major field than outside

TABLE 95 - INCIDENCE OF SUPERIOR INSTRUCTION:
TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
In nearly all courses	104	7.7	47	6.7	152	7.4
In most courses	487	36.2	197	27.9	688	33.3
In half the courses	413	30.7	221	31.3	637	30.8
In a minority of cases	230	17.1	159	22.5	393	19.0
In very few cases	108	8.0	78	11.0	188	9.1
Item inapplicable	3	0.2	1	0.1	4	0.2
No response	2	0.1	3	0.4	5	0.2
Total	1347	100.0	706	99.9	2067	100.0

TABLE 96 - INCIDENCE OF SUPERIOR INSTRUCTION:
BY AGE GROUPS

	Younger		Older	
	N	%	N	%
In nearly all courses	40	5.3	87	9.4
In most courses	226	29.9	333	36.0
In half the courses	253	33.4	256	27.7
In very few courses	154	20.4	170	18.4
Item inapplicable	81	10.7	75	8.1
No response	3	0.4	3	0.4
Total	757	100.0	925	100.0

of it. More than 50 percent indicated that somewhere between "a major proportion" and "nearly all" was in their major field. On the other hand only 14.5 percent indicated that only a small proportion or a minor proportion was outside their major field. The uniformity of opinion on this item among age group and degree group is noteworthy. Of the twenty-nine program dimensions on which the respondents were asked to give their opinion only three did not produce signficant chi-square results for both age group and degree groups. This item is one of those three, and apparently does reflect uniform positive feelings about the quality of instruction in their major area. This is not to suggest, however, that

TABLE 97 - SUPERIOR INSTRUCTION IN MAJOR VERSUS OTHER AREAS: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Other	
	N	%	N	%	N	%
A very small proportion	60	4.5	57	8.1	118	5.7
A minor proportion	113	8.4	69	9.8	182	8.8
About half	407	30.2	212	30.0	624	30.2
A major proportion	513	38.1	251	35.6	771	37.2
Nearly all	206	15.3	87	12.3	274	14.2
Item inapplicable	42	3.1	23	3.3	65	3.1
No response	6	0.4	7	1.0	13	0.6
Total	1347	100.0	706	100.1	2067	99.8

TABLE 98 - SUPERIOR INSTRUCTION IN MAJOR VERSUS OTHER AREAS: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
A very small proportion	41	5.4	52	5.6
A minor proportion	65	8.6	88	9.5
About half	250	33.0	272	29.4
A major proportion	274	36.2	346	37.4
Nearly all	101	13.3	129	13.9
Item inapplicable	19	2.5	33	3.7
No response	7	0.9	5	0.5
Total	757	99.9	925	100.0

instruction was in fact of high quality. Obviously this cannot be the case since instruction in most groups is directed, in any one class, to both majors and minors as well as individuals who are neither. Yet it is clear in these results that in any one instructional event the majors will describe it as superior and others will not.

9. If it was necessary for you to pass foreign language reading requirements, how do you rate the professional value of knowing how to read foreign language?

TABLE 99 - VALUE OF LANGUAGE REQUIREMENTS BY THOSE FULFILLING THEM: TOTAL SAMPLE AND BY DEGREE

	Ed.D.		Ph.D.		Total		Of those Responding
	N	%	N	%	N	%	%
Extremely valuable	6	0.4	43	6.1	49	2.4	6.1
Of considerable value	15	1.1	47	6.7	62	3.0	7.7
Moderately valuable	19	1.4	129	18.3	148	7.2	18.3
Of little value	41	3.0	257	36.4	301	14.6	37.2
Of no value'	51	3.8	197	27.9	248	12.0	30.7
Item inapplicable	744	56.0	25	3.5	784	37.9	
No response	461	34.2	8	1.1	475	23.0	
Total	1337	99.9	706	100.0	2067	100.0	100.0

TABLE 100 - VALUE OF LANGUAGE REQUIREMENTS BY THOSE FULFILLING THEM: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Extremely valuable	14	1.8	23	2.5
Of considerable value	19	2.5	34	3.7
Moderately valuable	48	6.3	72	7.8
Of little value	128	16.9	122	13.2
Of no value	132	17.4	72	7.8
Item inapplicable	292	38.6	341	36.9
No response	124	16.4	261	28.2
Total	757	99.9	925	100.1

The results of this item indicate that 39.2 percent of the total sample actually responded to this item. It is reasonable to assume that this is a fair, although not precise, estimate, of the proportion of the sample that actually passed the language requirement, slightly over 800 individuals. The distribution of responses across the continuum of value would be more meaningful if the percentages were based upon the 808 who apparently passed the language requirements rather than on the total sample. These figures

TABLE 101 - VALUE OF LANGUAGE REQUIREMENTS BY THOSE NOT FULFILLING THEM: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total		Of those Responding
	N	%	N	%	N	%	%
Of no value	199	14.8	9	1.3	209	10.1	16.4
Of little value	573	42.5	25	3.5	600	29.0	47.2
Moderately valuable	290	21.5	9	1.3	304	14.7	23.9
Of considerable value	96	7.1	9	1.3	105	5.1	8.3
Extremely valuable	44	3.3	7	1.0	53	2.6	4.2
Item inapplicable	75	5.6	264	37.4	341	16.5	
No response	70	5.2	383	54.2	455	22.0	
Total	1347	100.0	706	100.0	2067	100.0	100.0

TABLE 102 - VALUE OF LANGUAGE REQUIREMENTS BY THOSE NOT FULFILLING THEM: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Of no value	77	10.2	89	9.6
Of little value	212	28.0	262	28.3
Moderately valuable	95	12.5	166	17.9
Of considerable value	28	3.7	58	6.3
Extremely valuable	15	2.0	29	3.1
Item inapplicable	164	21.7	121	13.1
No response	166	21.9	200	21.6
Total	757	100.0	925	99.9

are presented in the last column of Table 99. The results indicate that 68 percent, or slightly more than two-thirds of the sample of those completing the language requirements, feel that their knowledge has little or no professional value. On the other hand, 13.8 percent of those fulfilling the language requirement did feel that their knowledge had considerable value or was extremely valuable. Additional meaning can be attached to this finding when compared to the ratings of foreign language requirements by those who did not fill the requirements. These results are shown in the next section.

10. If you did not fulfill foreign language requirements, how would you rate the professional value of knowing how to read a foreign language?

Twelve hundred and seventy one of the respondents, about 41 percent, responded to this item. To the extent that the respondents are representative of that total portion of the sample not fulfilling language requirements the results can be meaningfully compared to the results of the previous section. The most interesting feature of this comparison is that while 30.7 percent of those fulfilling the language requirements are willing to rate the requirement "of no value", only 16.4 percent of those who did not fulfill a language requirement are willing to risk such a rating. There is little difference between the language and non-language groups on proportion considering a reading knowledge of language of value, the percentages being 13.8 and 12.5 respectively. As would be expected the chi-squared analysis for degree groups on both this item and item nine result in huge chi-square, and again reaffirm the language requirements as the basic distinction between the two degrees. With respect to the age dimension significant chi-square resulted for both items ($p < .001$ in both cases). The results from both items tend to show that the younger group in general is much more negative in their response to the language requirements than is the older group. This is the case whether or not they were required to pass such a requirement. In addition to this interpretation, however, these two tables permit an additional interpretation with respect to the two independent variables of age and degree. It was noted early in the report that the Ph.D. group as a whole tended to be younger than the Ed.D. group. Hence, there has been a possibility that these two variables are highly correlated and should not be treated separately. However, the results of these two tables clearly suggest that the correlation is quite high. In case of both tables the chi-square would remain significant even if a no response and inapplicable categories were excluded from the contingency table. This is to be considered evidence for considerable independence for these two variables, and continued interpretation of the results separately for each of the two variables.

11. If it was necessary for you to pass a statistics requirement, how do you rate the professional value of this requirement?

In striking contrast to foreign language as a tool requirement, statistics, another tool requirement, was perceived as having considerably more value. Fifty-three point four percent of the sample considered this requirement as being either extremely valuable or of considerable value. (See Tables 103 and 104.) Only 5.4 percent of the sample saw the requirement as having little or no value. Ten point eight percent of the sample indicated the item was inapplicable, and an additional 5.3 percent of the sample did not respond. This would indicate that somewhere between 10 and 15 percent of the sample did not find it necessary to pass the statistic requirement; it would seem therefore to be a generally accepted requirement over doctoral programs in education. Chi-squared analysis indicated a high degree of independence for both the age group and the degree groups ($p < .001$ for both analyses). With respect to the degree groups the significance chi-square seems to result from two factors. First the Ph.D.'s in general were much more likely to rate the statistic requirement as extremely valuable, than was true for the Ed.D.'s to mark the item as not relevant. This would indicate that the Ph.D.'s were considerably less often required to take a statistics requirement. Since on the one hand the statistic requirement was considered to be a prime research tool for the educational researcher, and at the same time a Ph.D. degree is seen by many in their profession as the research degree, one can raise a real question concerning the meaningfulness of this particular kind of distinction between the two degrees.

TABLE 103 - VALUE OF STATISTICS REQUIREMENT: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total	
	N.	%	N	%	N	%
Extremely valuable	467	3 .	282	39.9	762	36.9
Of considerable value	381	28.3	160	22.7	547	26.5
Moderately valuable	233	17.3	80	11.3	315	15.2
Of little value	70	5.2	26	3.7	97	4.7
Of no value	11	0.8	3	0.4	14	0.7
Item inapplicable	119	8.8	103	14.6	223	10.8
No response	66	4.9	52	7.4	109	5.3
Total	1347	100.0	706	100.0	2067	100.1

TABLE 104 - VALUE OF STATISTICS REQUIREMENT: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Extremely valuable	331	43.7	302	32.6
Of considerable value	185	24.4	254	27.5
Moderately valuable	85	11.2	168	18.2
Of little value	20	2.6	56	6.1
Of no value	5	0.7	6	0.6
Item inapplicable	95	12.5	88	9.5
No response	36	4.8	51	5.5
Total	757	99.9	925	100.0

12. Apart from that occuring in the scheduled courses and seminars, to what extent was the interaction among the students encouraged through an active program of informal seminars, professional organizations, social events, etc.?

The results for this item, shown in Table 105, indicate considerable dispersal of response. Thirty-six percent indicated that such interaction was encouraged to a considerable extent or to a great extent. On the other hand, a group only somewhat smaller (33.7 percent) indicated that such interaction was encouraged only to a small extent or not at all. This is one item on which it

TABLE 105 - AMOUNT OF STUDENT INTERACTION: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
To a very great extent	178	13.2	80	11.4	261	12.6
To a considerable extent	350	26.0	149	21.1	503	24.3
To some extent	384	28.5	195	27.6	582	28.2
To a small extent	337	25.0	199	28.1	540	26.1
Not at all	82	6.1	75	10.6	157	7.6
Item inapplicable	14	1.0	6	0.8	20	1.0
No response	2	0.2	2	0.3	4	0.2
Total	1347	100.0	706	99.9	2067	100.0

TABLE 106 - AMOUNT OF STUDENT INTERACTION: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
To a very great extent	109	14.4	97	10.5
To a considerable extent	195	25.8	210	22.7
To some extent	208	27.5	278	30.1
To a small extent	185	24.4	251	27.1
Not at all	55	7.3	73	7.9
Item inapplicable	4	0.5	13	1.4
No response	1	0.1	3	0.3
Total	757	100.0	925	100.0

is reasonable to expect differences on the independent variable of major versus minor producing institutions, that is to say,the small programs versus the large programs. And it is the case that a significant chi-square ($p < .05$) does result, but the resultsindicate that student-student interaction is more likely to be encouraged in the large program than in the small. (See Table 107) The Ed.D.'s in this case were significantly more likely to indicate that interaction among students was encouraged than did the Ph.D.'s. (See Table 105) Chi-squared analysis also showed the age groups to be significantly independent with respect

TABLE 107 - AMOUNT OF STUDENT INTERACTION:
BY MAJOR AND MINOR PRODUCING INSTITUTIONS

	Major Producers		Minor Producers	
	N	%	N	%
To a very great extent	164	14.9	95	9.9
To a considerable extent	288	26.2	214	22.3
To some extent	294	26.8	286	29.8
To a small extent	271	24.7	266	27.7
Not at all	68	6.2	89	9.3
Item inapplicable	11	1.0	9	0.9
No response	2	0.2	2	0.2
Total	1098	100.0	961	100.1

to this item, in this case the younger, as opposed to the older group, felt that student interaction was encouraged to a greater extent. (See Table 106)

13. In reference to the preceding item, how would you rate the value of such interaction to you personally?

The results of this item as shown in Table 107, show a highly skewed distribution in a direction of no value. It is evident then that these recent graduates do consider student-student interaction as having considerable personal value to them. If one considers the previous item asking the extent to which interaction is encouraged in direct comparsion with this item where the value of such interaction is rated, it is possible to come up with some indication of the extent to which the respondents felt there was sufficient interaction among students in their institutions. Even a cursory study of the two tables indicates quite clearly that they were not so satisified. While 36.9 percent indicated that interaction was encouraged, 58.5 percent of the sample checked the top two categories of value. Only 11.4 percent of the sample indicated that such interaction held little value for them. Both independent variables again resulted

TABLE 108 - VALUE OF STUDENT INTERACTION: TOTAL SAMPLE AND BY DEGREE GROUPS

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Of no value	23	1.7	27	3.8	50	2.4
Of little value	129	9.6	56	7.9	187	9.0
Of some value	349	25.9	170	24.1	526	25.4
Of considerable value	453	33.6	223	31.6	679	32.8
Extremely valuable	347	25.8	182	25.8	531	25.7
Item inapplicable	41	3.0	46	6.5	87	4.2
No response	5	0.4	2	0.3	7	0.3
Total	1347	100.0	706	100.0	2067	99.8

TABLE 109 - VALUE OF STUDENT INTERACTION: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Of no value	17	2.2	21	2.3
Of little value	60	7.9	99	10.7
Of some value	176	23.2	262	28.3
Of considerable value	227	30.0	314	33.9
Extremely valuable	249	32.9	180	19.5
Item inapplicable	27	3.6	45	4.9
No response	1	0.1	4	0.4
Total	757	99.9	925	100.0

in significant chi-squares on this item. (See Tables 108 and 108.) With respect to the age variable the chi-square was very significant ($p < .001$) with the younger group much more likely than the older group to rate such interaction as extremely valuable. Curiously enough, the significant chi-square which results from the degree comparison indicates that two factors are operating: First, the Ph.D.'s are considerably more likely to rate the value of such interaction very low, and secondly, they are more likely to check the item as inapplicable.

14. Apart from occuring in scheduled courses and seminars, to what extent was interaction between faculty and student encouraged?

As was the case with student interaction, the distribution of responses with student-faculty interaction was widely dispersed. Slightly more than one-third indicated that such interaction was encouraged to a considerable extent or to a great extent, while nearly 30 percent of the total sample indicated that it was encouraged either to a small extent or not at all. (See Table 110.) Here again one might expect a difference between the major and the minor producing institutions in the amount of student-faculty interaction. The results showed, however, no difference between those institutions with large programs and small programs in the extent to which student-faculty interaction was encouraged. (See Table 112.) The perception of the different age groups and the different degree groups again showed statistical independence (chi-squared <.01). The direction of the difference in the case of age groups was in favor of the younger group who tended to see a greater encouragement of faculty-student interaction. The Ph.D.'s on the other hand tended in general to perceive less encouragement of faculty-student interaction. (See Tables 110 and 111.)

15. In reference to the preceding item, how would you rate the value of such interaction personally?

Again consistent with the findings on the value of student-student interaction, the group as a whole tended to see faculty-student interaction as having a highly different degree of value. Nearly three quarters of the respondents considered faculty-student interaction as having considerable value or being extremely valuable. (See Table 113.) By comparing the distribution of responses on the extent to which faculty-student interaction has value to the student, and the extent to which it is encouraged, as revealed in the previous item, it is clear that students

TABLE 110 - AMOUNT OF FACULTY-STUDENT INTERACTION: TOTAL SAMPLE AND BY DEGREE GROUPS

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
To a very great extent	134	9.9	76	10.8	211	10.2
To a considerable extent	376	27.9	157	22.2	537	26.0
To some extent	452	33.6	223	31.6	682	33.0
To a small extent	290	21.5	189	26.8	480	23.2
Not at all	83	6.2	51	7.2	134	6.5
Item inapplicable	7	0.5	5	0.7	12	0.6
No response	5	0.4	5	0.7	11	0.5
Total	1347	100.0	706	100.0	2067	100.0

TABLE 111 - AMOUNT OF FACULTY-STUDENT INTERACTION: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
To a very great extent	95	12.5	78	8.4
To a considerable extent	207	27.3	219	23.7
To some extent	230	30.7	334	36.1
To a small extent	172	22.7	214	23.1
Not at all	49	6.5	66	7.1
Item inapplicable	1	0.1	8	0.9
No response	3	0.4	6	0.6
Total	757	100.1	925	99.9

TABLE 112 - AMOUNT OF FACULTY-STUDENT INTERACTION: MAJOR VERSUS MINOR PRODUCING INSTITUTIONS

	Major		Minor	
	N	%	N	%
To a very great extent	118	10.7	91	9.5
To a considerable extent	282	25.7	255	26.5
To some extent	367	33.4	312	32.5
To a small extent	256	23.3	223	23.2
Not at all	67	6.1	65	6.8
Item inapplicable	4	0.4	8	0.8
No response	4	0.4	7	0.7
Total	1098	100.0	961	100.0

want a great deal more interaction with the faculty than they get. The groups on this item show a considerable degree of statistical independence with chi-squared analysis showing that the probability of a chance difference is less than .001. (See Table 114.) The younger graduates uniformly attach more value to faculty-student interaction than did the older students. The Ph.D.'s and Ed.D.'s in this case tended to distribute their rating of the value of faculty-student interaction at equal rates over the categories. (See Table 113.)

16. To what extent was your assistantship, staff appointment etc. while in residence relevant to your program objectives?

The results in Table 115 indicate that this item could be inapplicable to as many as 40 percent of the group. Hence, the rating would be more meaningful if based on the percent of those responding. The revised percentages are presented therefore in the last column of this table. The results indicate that the vast majority of cases, nearly 80 percent, did involve responsibilities which were related to program objectives. Both age and degree groups, however, did show considerable independence on this item. In fact, both chi-squares were significant at less than the .001 level. The younger group was much more convinced of the compatibility of their assignment with their program objectives than was true of the older group. (See Table 116.) The same seems to be the case with the Ph.D.'s as opposed to the Ed.D.'s. These results, of course, can be interpreted in two ways as has been the case with most of these items. That is to say, either the differences are perceived, or are real. However, with the exception of this item the picture of the Ph.D. which has been emerging has in general indicated that the Ph.D. group is the more conservative group in their enthusiasm toward any program dimension. The fact that the Ph.D.'s see more relevance of their staff assignment to their program objectives in this case than do the Ed.D.'s

TABLE 113 - VALUE OF FACULTY INTERACTION:
TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Of no value	12	0.9	10	1.4	22	1.1
Of little value	65	4.8	28	4.0	93	4.5
Of some value	248	18.4	131	18.6	382	18.5
Of considerable value	464	34.4	254	36.0	725	35.1
Extremely valuable	513	38.1	264	37.4	781	37.8
Item inapplicable	44	3.3	15	2.1	59	2.8
No response	1	0.1	4	0.6	5	0.2
Total	1347	100.0	706	100.1	2067	100.0

TABLE 114 - VALUE OF FACULTY INTERACTION:
BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Of no value	6	0.8	11	1.2
Of little value	36	4.8	44	4.8
Of some value	122	16.1	198	21.4
Of considerable value	235	31.0	349	37.7
Extremely valuable	343	45.3	287	31.0
Item inapplicable	15	2.0	33	3.6
No response	0	0.0	3	0.3
Total	757	100.0	925	100.0

might indicate a real difference. A realistic interpretation then of these findings might be that the good staff appointments, most closely related to student programs, are given first to young Ph.D.'s, then either to young Ed.D.'s or older Ph.D.'s, and finally to older Ed.D.'s. While this interpretation would be extremely difficult to verify with the data at hand, it does seem well worth consideration.

17. How would you rate the educational value of this appointment?

TABLE 115 - RELEVANCE OF ASSISTANTSHIP TO PROGRAM OBJECTIVES:
TOTAL SAMPLE AND BY DEGREE GROUPS

	Ed.D.		Ph.D.		Total		Of those responding
	N	%	N	%	N	%	%
To a very great extent	329	24.4	265	37.5	600	29.0	52.8
To considerable extent	185	13.7	108	15.3	296	14.3	26.1
To some extent	87	6.5	36	5.1	124	6.0	10.9
To a small extent	54	4.0	21	3.0	76	3.7	6.7
Not at all	31	2.3	9	1.3	40	1.9	3.5
Item inapplicable	561	41.6	222	31.4	784	37.9	
No response	100	7.4	45	6.4	147	7.1	
Total	1347	99.9	706	100.0	2067	99.9	100.0

TABLE 116 - RELEVANCE OF ASSISTANTSHIP TO PROGRAM OBJECTIVES:
BY AGE GROUPS

	Younger		Older	
	N	%	N	%
To a very great extent	304	40.2	96	20.0
To considerable extent	137	18.1	185	10.1
To some extent	53	7.0	93	5.0
To a small extent	23	3.0	46	4.0
Not at all	8	1.1	37	2.5
Item inapplicable	201	26.6	23	48.1
No response	31	4.1	96	10.4
Total	757	100.1	576	100.1

That the group as a whole tends to feel that their appointment had educational value can scarcely be questioned. The results in Table 117, corrected for those apparently not having appointments, indicate that 58.8 percent of the individuals consider their appointment extremely valuable, educationally speaking. A total of 83 percent rated the educational value of their appointment in the top two categories, while only 4.5 percent considered the appointment as having little or no educational value. The age groups and degree groups were statistically independent on their assignment of ratings on this item at the .001 and .01 levels,

TABLE 117 - VALUE OF ASSISTANTSHIP: TOTAL SAMPLE AND BY DEGREE GROUPS

	Ed.D.		Ph.D.		Total		Of those responding
	N	%	N	%	N	%	%
Of no value	7	0.5	3	0.4	10	0.5	0.9
Of little value	29	2.2	12	1.7	41	2.0	3.6
Of some value	93	6.9	46	6.5	141	6.8	12.5
Of considerable value	162	12.0	107	15.2	273	13.2	24.2
Extremely valuable	389	28.9	270	38.2	664	32.1	58.8
Item inapplicable	563	41.8	220	31.2	784	37.9	
No response	104	7.7	48	6.8	154	7.4	
Total	1347	100.0	706	100.0	2067	99.9	100.0

TABLE 118 - VALUE OF ASSISTANTSHIP: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Of no value	1	0.1	7	0.8
Of little value	14	1.8	19	2.1
Of some value	52	6.9	64	6.9
Of considerable value	126	16.6	82	8.9
Extremely valuable	330	43.6	207	22.4
Item inapplicable	202	26.7	446	48.2
No response	32	4.2	100	10.8
Total	757	99.9	925	100.1

respectively. (See Tables 117 and 118.) While both the older and younger groups ranked the educational value of this appointment highly, the major portion of the chi-square is accounted for in two categories. The younger group tended to use the category "extremely valuable" a great deal less than the older group. On the other hand, the younger group more often than the older group tended to use the category "of considerable value." Exactly the same interpretation can be made of the results for the two degree groups with the Ph.D.'s tending to be slightly more conservative than the Ed.D.'s with respect to the educational value of their staff appointments. As in the case of the previous item, however, much of the chi-square is accounted for not by differences in rating, but by differences in proportions holding staff appointments.

18. How useful was general advice and counseling on academic and professional matters?

The respondents in general were not dissatisfied with the value and usefulness of the advice and counseling they received during the program. Only 10 percent indicated little or no usefulness for this aspect of their program. Neither the age variable nor the degree variable showed independence with respect to this item. (See Tables 119 and 120.)

19. To what extent was there ongoing research in your field of interest and your institution?

The results for this program dimension show that somewhat less than half of the total sample felt that the amount of research going on at their institution and their field of interest was considerable or great. However, slightly more than a quarter of the sample indicated that the amount of research in their field was limited to non-existent. (See Table 121.) It would be reasonable to expect systematic institutional variation on the amount of research going on and this does seem to be the case. Using major versus minor producing institutions as the independent variable, chi-squared analysis does indicate a very high degree of statistical independence ($p > .001$) in predicted direction. (See Table 123.) The students from the major producing institutions do in general tend to see a great deal more ongoing research in their field of interest. The younger group in general also tends to see relevant research going on to a greater extent than does the older group. The degree groups also show independence ($p > .005$), but the chi-squares seem to be accounted for in the extreme categories. (See Table 121.)

TABLE 119 - VALUE OF ADVICE AND COUNSELING: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Extremely useful	410	30.4	171	24.2	586	28.4
Of considerable usefulness	441	32.7	229	32.4	673	32.6
Moderately useful	333	24.7	198	28.0	536	25.9
Of little use	96	7.1	69	9.8	166	8.0
Useless	25	1.9	17	2.4	42	2.0
Item inapplicable	37	2.7	16	2.3	53	2.6
No response	5	0.4	6	0.8	11	0.5
Total	1347	99.9	706	99.9	2067	100.0

TABLE 120 - VALUE OF ADVICE AND COUNSELING: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Extremely useful	226	29.9	244	26.4
Of considerable usefulness	242	32.0	304	32.9
Moderately useful	199	26.3	243	26.3
Of little use	56	7.4	83	9.0
Useless	12	1.6	22	2.4
Item inapplicable	16	2.1	25	2.7
No response	6	0.8	4	0.4
Total	757	100.1	925	100.1

The Ph.D.'s seem to see research going on in their field of interest either to a very great extent or not at all.

20. To what extent were there opportunities for doctoral students to participate in this research?

Thirty-eight point three percent of the sample indicated that there was a considerable to great amount of opportunity for them to participate in this research. Twenty-six percent rated the extent of opportunity as small to nonexistent. If one compares the distribution of responses on this item to the

TABLE 121 - INTEREST OF ONGOING RESEARCH: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
To a very great extent	243	18.0	157	22.2	404	19.5
To considerable extent	383	28.4	201	28.5	587	28.4
To some extent	332	24.6	158	22.4	492	23.8
To a small extent	271	20.1	108	15.3	382	18.5
Not at all	88	6.5	74	10.5	164	7.9
Item inapplicable	16	1.2	2	0.3	18	0.9
No response	14	1.0	6	0.8	20	1.0
Total	1347	99.8	706	100.0	2067	100.0

TABLE 122 - INTEREST OF ONGOING RESEARCH: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
To a very great extent	176	23.2	149	16.1
To considerable extent	217	28.7	270	29.2
To some extent	172	22.7	224	24.2
To a samll extent	130	17.2	183	19.8
Not at all	51	6.7	80	8.6
Item inapplicable	5	0.7	12	1.3
No response	6	0.8	7	0.8
Total	757	100.0	925	100.0

TABLE 123 - INTEREST OF ONGOING RESEARCH:
MAJOR VERSUS MINOR PRODUCING INSTITUTIONS

	Younger		Older	
	N	%	N	%
To a very great extent	282	25.7	120	12.5
To considerable extent	337	30.7	248	25.8
To some extent	225	20.5	266	27.7
To a small extent	166	15.1	214	22.3
Not at all	72	6.6	91	9.5
Item inapplicable	7	0.6	11	1.1
No response	9	0.8	11	1.1
Total	1098	100.0	961	100.0

distribution of the previous item, there is a suggestion of a slight lag between the extent of opportunities to participate in research and the amount of research going on. (See Table 124.) This could be interpretated to mean that the students in general were not entirely pleased with the extent to which they were able to participate in the research activities of the institution. The age groups, but not the degree groups, showed statistical independence on this item ($p > .001$). The direction of the difference is consistent with the findings with respect to item 16 where the younger group seem more often able to gain assistantships corolated with their program objectives: In this case the younger group saw themselves as more free to participate in ongoing research in their field of interest at their institution. (See Table 125.) Analysis of the degree group did not quite reach statistical significance, but the trend is in a similar direction with the Ph.D. group as seeing themselves as more free to participate in ongoing research in their institution.

21. In terms of relative emphasis of production of individuals competent in research as opposed to production of competent college teachers, the program of your university seemed to be charaterized by:

The general results of the total sample on this item show a sharply leptokurtic distribution with 56.6 percent of the sample feeling that the balance was proper. (See Table 126.) The proportion perceiving overemphasis on teaching was 14.8 percent. Since again one might predict institutional variation on balance with respect to this particular continuum, the large-small program variable was brought into the analysis. A significant chi-square ($p > .001$) does result, and indicate that students from large institutions are more likely to perceive an overemphasis on research while those from small institutions are more likely to see an overemphasis on teaching. (See Table 128.) The younger and older groups again differ

TABLE 124 - EXTENT OF OPPORTUNITIES TO PARTICIPATE IN RESEARCH: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
To a very great extent	174	12.9	122	17.3	298	14.4
To considerable extent	322	23.9	165	23.4	494	23.9
To some extent	385	28.6	196	27.8	582	28.2
To a small extent	235	17.4	107	15.2	342	16.5
Not at all	131	9.7	63	8.9	197	9.5
Item inapplicable	87	6.5	44	6.2	132	6.4
No response	13	1.0	9	1.3	22	1.1
Total	1347	100.0	706	100.1	2067	100.0

TABLE 125 - EXTENT OF OPPORTUNITIES TO PARTICIPATE IN RESEARCH: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
To a very great extent	151	19.9	94	10.2
To considerable extent	191	25.2	206	22.3
To some extent	203	26.8	282	30.5
To a small extent	112	14.8	163	17.6
Not at all	56	7.4	105	11.4
Item inapplicable	40	5.3	65	7.0
No response	4	0.5	10	1.1
Total	757	99.9	925	100.0

significantly in their relative perception of the balance of research teaching emphasis in their institution ($p > .01$). Explanation of the chi-square, however, lies not in the research-teaching dichotomy, but rather in balance versus imbalance. (See Table 127) Younger students tend more often to see imbalance in the direction of either research or teaching while the older group is much more lilely to see a proper balance. The degree groups show statistical independence at the .001 level of significance. The Ph.D.'s again deny allegiance to the trend toward defining their degree strictly in terms of research, for it is the Ph.D. who is more likely

TABLE 126 - RELATIVE EMPHASIS OF PRODUCTION OF INDIVIDUALS IN RESEARCH AS OPPOSED TO PRODUCTION OF COLLEGE TEACHERS: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Great overemphasis on research	39	2.9	54	7.6	93	4.5
Overemphasis on research	186	13.8	153	21.7	341	16.5
Proper balance	801	59.5	359	50.8	1171	56.6
Overemphasis on teaching	198	14.7	79	11.2	278	13.4
Great overemphasis on teaching	22	1.6	8	1.1	30	1.4
Item inapplicable	87	6.5	40	5.7	127	6.1
No response	14	1.0	13	1.8	27	1.3
Total	1347	100.0	706	99.9	2067	99.8

TABLE 127 - RELATIVE EMPHASIS OF PRODUCTION OF INDIVIDUALS IN RESEARCH AS OPPOSED TO PRODUCTION OF COLLEGE TEACHERS: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Great overemphasis on research	41	5.4	38	4.1
Overemphasis on research	132	17.4	137	14.8
Proper balance	406	53.6	544	58.8
Overemphasis on teaching	112	14.8	124	13.4
Great overemphasis on teaching	16	2.1	8	0.9
Item inapplicable	43	5.7	61	6.6
No response	7	0.9	13	1.4
Total	757	99.9	925	100.0

to see overemphasis on research and underemphasis on teaching. Conversely the Ed.D. is more likely to see a proper balance along with overemphasis on teaching and underemphasis on research.

22. The doctoral disseration at their university seemed to be perceived as more of a laborious exercise than a real intellectual experience eventuating in useful knowledge.

TABLE 128 - RELATIVE EMPHASIS OF PRODUCTION OF INDIVIDUALS IN RESEARCH AS OPPOSED TO PRODUCTION OF COLLEGE TEACHERS: BY MAJOR VERSUS MINOR PRODUCING INSTITUTIONS

	Major Producing		Minor Producing	
	N	%	N	%
Great overemphasis on research	69	6.3	24	2.5
Overemphasis on research	197	17.9	143	14.9
Proper balance	609	55.5	556	57.9
Overemphasis on teaching	126	11.5	152	15.8
Great overemphasis on teaching	13	1.2	17	1.8
Item inapplicable	71	6.5	56	5.8
No Response	13	1.2	13	1.4
Total	1098	100.0	961	100.1

A continuum here is one of agreement and results of the total group indicate that almost a quarter of the total sample agreed to some extent with the strongly negative statement posed to him. Only 18.4 percent disagree strongly, while a total of 66.4 percent do either disagree or disagree strongly. Relatively few (9.2 percent) do not have strong opinions on this matter. (See Table 129). The degree groups tend to distribute their responses in parallel fashion, and as a result the chi-squared analysis shows no independence. The age groups on the other hand do show independence at the .001 level. In this case the results are somewhat complex, chi-square seems to be accounted for in three categories, with the younger group somewhat less likely to have no opinion, more likely to disagree, but less likely to disagree strongly, than is the case with respect to the responses of the older group. (See Table 130).

23. What degree of freedom and self direction was generally allowed in the development of the dissertation problem?

Results in Table 131 indicate that almost 86 percent of the total sample felt that they had experienced a considerable amount, to a great amount of freedom

TABLE 129 - DOCTORAL DISSERTATION PERCEIVED AS LABORIOUS EXERCISE THAN AN INTELLECTUAL EXPERIENCE: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Agree strongly	81	6.0	52	7.4	133	6.4
Agree	232	17.2	119	16.8	353	17.1
No opinion or can't say	131	9.7	59	8.4	191	9.2
Disagree	658	48.8	328	46.4	993	48.0
Disagree strongly	237	17.6	140	19.8	381	18.4
No response	8	0.6	8	1.1	16	0.8
Total	1347	99.9	706	99.9	2067	99.9

TABLE 130 - DOCTORAL DISSERTATION PERCEIVED AS LABORIOUS EXERCISE THAN AN INTELLECTUAL EXPERIENCE: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Agree strongly	49	6.5	60	6.5
Agree	128	16.9	161	17.4
No opinion or can't say	65	8.6	92	9.9
Disagree	380	50.1	431	46.6
Disagree strongly	133	17.5	170	18.4
No response	2	0.3	11	1.2
Total	757	99.9	925	100.0

and self direction in the development of the dissertation problem. Chi-squared analysis showed a difference at the one percent level of significance with the age group, but no difference between the degree groups. In general, the younger group tended to see a greater amount of freedom and self direction in development of their dissertation problems than did the older group. (See Table 132)

24. How adequate was the advice and guidance of your dissertation director?

The distribution of responses on this item shows considerably more variance than on the previous item, indicating, perhaps, that not all individuals in the sample felt the freedom and self direction in working out the dissertation problem

TABLE 131 - DEGREE OF FREEDOM AND SELF DIRECTION ALLOWED IN DEVELOPMENT OF DISSERTATION: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Practically none	14	1.0	4	0.6	18	0.9
Very little	31	2.3	17	2.4	48	2.3
A moderate amount	153	11.4	63	8.9	217	10.5
A considerable amount	423	31.4	205	29.0	635	30.7
A great amount	723	53.7	412	58.4	1141	55.2
Item inapplicable	1	0.1	1	0.1	2	0.1
No response	2	0.1	4	0.6	6	0.3
Total	1347	100.0	706	100.0	2067	100.0

TABLE 132 - DEGREE OF FREEDOM AND SELF DIRECTION ALLOWED IN DEVELOPMENT OF DISSERTATION: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Practically none	6	0.8	9	1.0
Very little	15	2.0	26	2.8
A moderate amount	63	8.3	108	11.7
A considerable amount	209	27.6	301	32.5
A great amount	461	60.9	478	51.7
Item inapplicable	1	0.1	1	0.1
No response	2	0.3	2	0.2
Total	757	100.0	925	100.0

was entirely desirable. In any event "adequacy" is a vague term in this item, especially its relation with previous items. If a person feels that a great deal of freedom and self direction is desirable in the development of a dissertation he may rate advice and guidance of his dissertation director as adequate if he receives no such advice and guidance, and inadequate if he receives a great deal. The converse of this problem can be applied, of course, to those who feel that freedom and self direction in the development of a dissertation problem is a handicap. Therefore this item should not be related too closely to the preceding item. It is quite likely, however, that the 13.3 percent who felt that the advice and guidance of the dissertation director was less than adequate, did feel that they had more freedom than they needed. The degree groups did not differ on this item, but the age groups showed independence at the .01 level, with the younger group seeming more satisified with the adequacy of the advice and guidance of the dissertation directors. These results are presented in Tables 133 and 134.

25. How would you rate the general helpfulness of your doctoral committee other than the thesis director in guiding your dissertation project?

The distribution of the responses of the total group on this item is nearly rectangular over the first four categories indicating a much wider than usual range of satisfcation with this dimension of their program.

Twenty-one point four percent of the sample felt that a doctoral committee excluding the thesis director was very helpful and 6.6 percent felt that it was of no help. Combining the two positive and two negative categories 43.8 percent felt that the committee was either of considerable help or very helpful, while 28.1 percent felt that the committee was of little or no help. This item also represents the third of the three items previously mentioned on which neither the differences on degree groups or age groups was significant. (See Tables 135 and 136)

26. In your thesis work how would you rate the extent to which your department and or surrounding schools cooperated in providing sources of data and opportunities for experimentation?

The group as a whole seemed quite pleased with this particular dimension of their program, in all 63.9 percent indicated that cooperation for purpose of research was extremely satisfactory or highly satisfactory. The Ph.D.'s, however,

TABLE 133 - ADEQUATE ADVICE AND GUIDANCE: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Completely adequate	491	36.4	216	30.6	713	34.5
Highly adequate	394	29.2	211	29.9	609	29.5
Adequate	284	21.1	165	23.4	450	21.8
Rather inadequate	139	10.3	86	12.2	228	11.0
Completely inadequate	28	2.1	20	2.8	48	2.3
Item inapplicable	3	0.2	3	0.4	6	0.3
No response	8	0.6	5	0.7	13	0.6
Total	1347	99.9	706	100.0	2067	100.0

TABLE 134 - ADEQUATE ADVICE AND GUIDANCE: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Completely adequate	272	35.9	302	32.6
Highly adequate	227	30.0	258	27.9
Adequate	157	20.7	222	24.0
Rather inadequate	84	11.1	110	11.9
Completely inadequate	13	1.7	23	2.5
Item inapplicable	2	0.3	3	0.3
No response	2	0.3	7	0.8
Total	757	100.0	925	100.0

were significantly less satisfied with research cooperation than were the Ed.D.'s. And at the same time the younger group seemed more satisfied than the older ($p < .01$). These results may be seen in Tables 137 and 138.

27. How would you rate the adequacy of the university library for your thesis work?

This program dimension was perceived as generally satisfactory over the group with 84.8 percent of the sample indicating that they considered their library facilities satisfactory to extremely satisfactory and 14.4 percent indicating an unsatisfactory reaction to the library facilities at their institution. This is

TABLE 135 - HELPFULNESS OF DOCTORAL COMMITTEE OTHER THAN THESIS DIRECTOR: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Very helpful	303	22.5	138	19.5	442	21.4
Of considerable help	304	22.6	156	22.1	463	22.4
Moderately helpful	362	26.9	194	27.5	563	27.2
Of little help	295	21.9	146	20.7	444	21.5
Of no help	74	5.5	62	8.8	136	6.6
Item inapplicable	6	0.4	7	1.0	13	0.6
No response	3	0.2	3	0.4	6	0.3
Total	1347	100.0	706	100.0	2067	100.0

TABLE 136 - HELPFULNESS OF DOCTORAL COMMITTEE OTHER THAN THESIS DIRECTOR: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Very helpful	159	21.0	193	20.9
Of considerable help	165	21.8	209	22.6
Moderately helpful	213	28.1	247	26.7
Of little help	162	21.4	203	21.9
Of no help	51	6.7	62	6.7
Item inapplicable	6	0.8	7	0.8
No response	1	0.1	4	0.4
Total	757	99.9	925	100.0

another dimension on which one can reasonably expect a difference between the responses of those individuals from large programs as opposed to those individuals from small programs. The chi-squared analysis tends to support this hypothesis at a significance level of less than .001. The direction of the difference not unexpectedly is in favor of greater satisfaction among the major producing institutions. Chi-squared analysis also showed more favorable attitudes held by both the Ed.D. and the younger group and among degree groups and age groups respectively. The results are presented in Tables 139, 140 and 141.

TABLE - 137 COOPERATION IN PROVIDING DATA AND OPPORTUNITIES FOR EXPERIMENTATION: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Extremely satisfactory	500	37.1	228	32.3	731	35.4
Highly satisfactory	381	28.3	200	28.3	589	28.5
Moderately satisfactory	186	13.8	101	14.3	287	13.9
Rather unsatisfactory	46	3.4	23	3.3	71	3.4
Completely unsatisfactory	20	1.5	22	3.1	42	2.0
Item inapplicable	210	15.6	127	18.0	338	16.4
No response	4	0.3	5	0.7	9	0.4
Total	1347	100.0	706	100.0	2067	100.0

TABLE 138 - COOPERATION IN PROVIDING DATA AND OPPORTUNITIES FOR EXPERIMENTATION: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Extremely satisfactory	292	38.6	300	32.4
Highly satisfactory	199	26.3	274	29.6
Moderately satisfactory	113	14.9	126	13.6
Rather unsatisfactory	18	2.4	42	4.5
Completely unsatisfactory	12	1.6	19	2.1
Item inapplicable	122	16.1	157	17.0
No response	1	0.1	7	0.8
Total	757	100.0	925	100.0

28. In your thesis work how would you rate the extent to which departments made facilities available for compiling, tabulating, and computing data?

Results for this program dimension indicate that slightly over 50 percent were either extremely satisfied or highly satisfied with the facilities for treating data. Only 11.2 percent indicated dissatisfaction. The 23.1 percent which marked this item as "inapplicable" can probably be considered an index of the proportion of the dissertations not involving a significant empirical dimension. Again there is the obvious possibility of institutional differences on this

TABLE 139 - ADEQUACY OF UNIVERSITY LIBRARY: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Extremely unsatisfactory	105	7.8	55	7.8	160	7.7
Rather unsatisfactory	94	7.0	41	5.8	138	6.7
Moderately satisfactory	293	21.8	126	17.8	426	20.6
Highly satisfactory	500	37.1	250	35.4	752	36.4
Extremely satisfactory	348	25.9	225	31.9	575	27.8
No response	6	0.4	9	1.3	16	0.7
Total	1346	100.0	706	100.0	2067	99.9

TABLE 140 - ADEQUACY OF UNIVERSITY LIBRARY: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Extremely unsatisfactory	47	6.2	83	9.0
Rather unsatisfactory	63	8.3	55	5.9
Moderately satisfactory	141	18.7	207	22.4
Highly satisfactory	270	35.7	343	37.1
Extremely satisfactory	227	30.0	233	25.2
No response	8	1.1	4	0.4
Total	756	100.0	925	100.0

TABLE 141 - ADEQUACY OF UNIVERSITY LIBRARY: MAJOR VERSUS MINOR PRODUCING INSTITUTIONS

	Major Producing		Minor Producing	
	N	%	N	%
Extremely unsatisfactory	91	8.3	69	7.2
Rather unsatisfactory	46	4.2	92	9.6
Moderately satisfactory	176	16.0	247	25.7
Highly satisfactory	394	35.9	353	36.8
Extremely satisfactory	382	34.8	193	20.1
No response	9	0.8	6	0.6
Total	1098	100.0	960	100.0

dimension of doctoral programs, and chi-squared analysis does suggest the feasibility of the hypothesis of independence of major and minor producing institutions ($p < .001$). The chi-square seems to be largely accounted for in three categories: More respondents from small programs than expected rated facilities highly satisfactory or moderately satisfactory, while more respondents from major producing institutions indicated that the item was inapplicable. Hence, it seems reasonable to infer the possibility of more non-empirical dissertations at institutions having a larger number of graduate students in education than institutions having a smaller number. The degree groups were not independent on this variable, but the age groups were highly independent ($p < .001$). The chi-square for age groups seems to involve three categories: First the younger students were more likely to rate department facilities, and the availability of such facilities, as extremely satisfactory or highly satisfactory. At the same time, many more than expected of the older group indicated that the item was inapplicable, again a reasonable interpretation would be that fewer non-empirical disserations were undertaken by the younger age group. The results for this item are presented in Tables 142, 143, and 144.

29. If you were starting your graduate work in education again and had your choice of any graduate school in the United States, how likely would you be to choose the same institution again?

As has been the case with all the evaluative items the total sample in general seem highly satisfied with the institution which granted their doctorate. Forty-five point four percent of the total sample indicated that it would be extremely likely that they would again choose the same institution. In all, slightly more than two thirds fell into the two most positive categories. On the other hand, 18.2 percent expressed some uncertainty about the likelihood of choosing the same

TABLE 142 - FACILITIES AVAILABLE FOR COMPILING, TABULATION AND COMPUTING DATA: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Extremely satisfactory	372	27.6	234	33.1	610	29.5
Highly satisfactory	278	20.6	149	21.1	430	20.8
Moderately satisfactory	208	15.4	88	12.5	298	14.4
Rather unsatisfactory	82	6.1	52	7.4	135	6.5
Extremely unsatisfactory	59	4.4	38	5.4	97	4.7
Item inapplicable	336	24.9	138	19.5	478	23.1
No response	12	0.9	7	1.0	19	0.9
Total	1347	99.9	706	100.0	2067	99.9

TABLE 143 - FACILITIES AVAILABLE FOR COMPILING, TABULATION AND COMPUTING DATA: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Extremely satisfactory	289	38.2	198	21.4
Highly satisfactory	162	21.4	182	19.7
Moderately satisfactory	85	11.2	161	17.4
Rather unsatisfactory	49	6.5	66	7.1
Extremely unsatisfactory	35	4.6	42	4.5
Item inapplicable	133	17.6	265	28.6
No response	4	0.5	11	1.2
Total	757	100.0	925	99.9

TABLE 144 - FACILITIES AVAILABLE FOR COMPILING, TABULATION AND COMPUTING DATA: BY MAJOR VERSUS MINOR PRODUCING INSTITUTIONS

	Major Producing		Minor Producing	
	N	%	N	%
Extremely satisfactory	320	29.1	286	29.8
Highly satisfactory	202	18.4	225	23.4
Moderately satisfactory	139	12.7	158	16.4
Rather unsatisfactory	77	7.0	58	6.0
Extremely unsatisfactory	48	4.4	49	5.1
Item inapplicable	303	27.6	175	18.2
No response	9	0.8	10	1.0
Total	1098	100.0	961	99.9

institutions, and 11.0 percent indicated that it was very unlikely that they would make the same choice. On the negative side, therefore, it seems reasonable to say that 29.2 percent are not at all convinced that they would select the same institution or rather firmly convinced that they would not make the same choice. (See Table 145) Those who were graduated from institutions with large programs seemed to feel significantly more positive toward their institutions than those individuals from small programs ($p < .001$).

. Major field has not been used as a variable in this section primarly because of the low N's in some fields when it is distributed across a five point scale. To do so results in near zero expected frequencies in some cases. The effect of this of course is to produce spuriously high chi-squares, and interpretations of the data which are often unwarranted. At this point, however, the risk is taken on the grounds that this particular item represents one of the few opportunities to see if in general program satisfaction is tied in with institutional satisfaction. That is to say, is it possible that certain major fields have certain inherent features (or the persons who elect these major fields) which lead to satisfaction of dissatisfaction, which in turn are reflected in the ratings of institutions. Or to think of it still another way: Is an institutional rating as made by recent graduates a function of the institution itself, or is it in part a function of areas of specialization in problems within that area? The analysis of the data resulted in highly significant chi-squares, but the warning previously stated applies Hence, the following cautious interpretation of the data are offered in Table 146. Column 1 of the table prepresents the most popular category and a study of that column suggests considerable variance of the proportions of the various majors choosing this category. Student personnel majors, practical arts majors and physical education majors seemed to be the most certain that they would again

TABLE 146 - LIKELIHOOD OF CHOOSING THE SAME INSTITUTION AGAIN: BY MAJOR FIELDS

	Extremely Likely		Highly Likely		Rather Likely		Rather Unlikely		No Response	
	N	%	N	%	N	%	N	%	N	%
Special education	25	36.2	15	21.7	13	18.8	15	21.7	1	1.4
Administration	254	50.6	115	22.9	80	15.9	44	8.8	9	1.8
Curriculum	37	34.9	26	24.5	23	21.7	15	14.2	5	4.7
Physical education	26	54.2	10	20.8	4	8.3	8	16.7	0	0.0
Practical arts	60	57.1	21	20.0	10	9.5	12	11.4	2	1.9
Social foundations	17	34.7	12	24.5	11	22.4	6	12.2	3	6.1
Subject areas	47	39.2	32	26.7	22	18.3	12	10.0	7	5.8
Math and science educ.	37	48.7	13	17.1	14	18.4	9	11.8	3	3.9
Educational psychology	42	35.0	34	28.3	26	21.7	12	10.0	6	5.0
Secondary education	45	49.5	19	20.9	19	20.9	4	4.4	4	4.4
Elementary education	48	46.6	21	20.4	18	17.5	10	9.7	6	5.8
Higher education	15	27.8	15	27.8	8	14.8	8	14.8	8	14.8
Guidance	78	42.4	41	22.3	37	20.1	24	13.0	4	2.2
Psychology	36	32.1	22	19.6	27	24.1	21	18.8	6	5.4
Student personnel	21	61.8	4	11.8	6	17.6	2	5.9	1	2.9

choose the same institution. On the other hand, psychology majors and higher education majors seem much less often to make use of this category. Scanning the last column, which represents the most negative category, special education majors and psychology majors seem in general to reflect the most negative attitudes toward their institutions. On the other hand, secondary education majors, student personnel majors, and administration majors least often make use of this category. Combining the two most positive categories, it would seem that practical arts majors, physical education majors, student personnel majors, and administration majors have the most positive feeling toward their institution, while psychology majors, educational psychology majors and higher education majors have the least regard for the institution granting their degree. Just what are the characteristics of these fields which seems to be associated with institutional satisfaction is

TABLE 145 - LIKELIHOOD OF CHOOSING THE SAME DOCTORAL INSTITUTION AGAIN: TOTAL SAMPLE AND BY DEGREE GROUPS

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Extremely likely	644	47.8	289	40.9	939	45.4
Highly likely	298	22.1	150	21.2	450	21.8
Rather likely	231	17.1	142	20.1	376	18.2
Very unlikely	130	9.7	95	13.5	228	11.0
Item inapplicable	37	2.7	22	3.1	59	2.8
No response	7	0.5	8	1.1	15	0.7
Total	1347	99.9	706	99.9	2067	99.9

TABLE 147 - LIKELIHOOD OF CHOOSING THE SAME DOCTORAL INSTITUTION AGAIN: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Extremely likely	348	46.0	391	42.2
Highly likely	165	21.8	216	23.3
Rather likely	145	19.2	167	18.0
Very unlikely	78	10.3	107	11.5
Item inapplicable	18	2.4	36	3.9
No response	3	0.4	8	0.9
Total	757	100.1	925	99.8

TABLE 148 - LIKELIHOOD OF CHOOSING THE SAME DOCTORAL INSTITUTION AGAIN: BY MAJOR AND MINOR PRODUCING INSTITUTIONS

	Major Producing		Minor Producing	
	N	%	N	%
Extremely likely	560	51.0	376	39.1
Highly likely	249	22.7	199	20.7
Rather likely	155	14.1	219	22.8
Rather unlikely	103	9.4	124	12.9
Item inapplicable	27	2.5	32	3.3
No response	4	0.4	11	1.1
Total	1098	100.0	961	99.9

of course not revealed here. One can speculate, of course, that in the case of psychology majors and educational psychology majors that these feelings may be associated with the divided loyalties between the school of education that grants the degree, and the department of psychology which represents the parent discipline. These majors having to bear the burden of many institutional conflicts that may exist could lead to undesirable feelings toward the institution. The problem of divided loyalty may simply not arise in the case of the administration majors, the practical arts majors, etc. Undoubtedly, however, no simple explanation exist for this need in the findings, and the hypothesis thus drawn is more for purpose of stimulating the reader to entertain the question than to deposit a defensible explanation.

The most dependable independent variable, the older versus the younger graduates, again shows in this case low probability of independence via the chi-squared analysis ($p > .05$) with the age groups manifesting no difference in feelings toward their doctoral institutions. The degree variable also shows no difference between groups on this item. (See Tables 147 and 148)

In summarizing the section on evaluation of program dimension certain generalizations seem defensible in terms of the data presented. For example, at the moment, just having successfully completed the doctoral program, the sample as a whole felt quite positive toward nearly every dimension mentioned. The only exceptions to this appear to be the language requirement for which it was asserted by those fulfilling such requirements as well as those not fulfilling requirements, there was little or no value. The sample as a whole seemed to feel that they are a part of a select group, they perceive the caliber of their fellow students as being at least equal to fields outside of education. They found their course work appropriate to their objectives, and well balanced between their major area and minor area. They felt in general, that their freedom of choice with respect to course work was adequate, and that they had experienced excellent instruction, although better in their major area than in other areas. The statistics requirement was considered to be an extremely valuable professional asset. The group felt fairly pleased about the amount of student-student interaction and faculty-student interaction, but would have preferred considerably more. Those individuals having an assistantship, or some other kind of staff appointment, found them in general to be quite revelent to their program objectives and having a great deal of educational value. There was not always the amount of research activity in their field of interest that they would have liked, nor did they feel completely pleased with the extent they were able to involve themselves in it. In general the respondents felt that their institution maintained good balance in their relative emphases on production of researchers as opposed to college teachers, but if there was imbalance it was more likely to be overemphasis on research. The individuals of the sample felt that in general the advice and counseling received was adequate and useful. While feelings were mixed on the educational an intellectual value of the dissertation the feelings of the vast majority were positive. Most felt they had a great deal of freedom in the development of a dissertation problem, but feelings were somewhat more mixed on the adequacy of advice and guidance of the dissertation director. Feelings were even more mixed on the helpfulness of the doctoral committee during the dissertation. Nearly all were well satisfied with the kind of cooperation received from the department and surrounding school providing sources of data and opportunities for experimentation. Less satisfactory, however, were the facilities available for compiling, tabulating, computative data, and with the adequacy of the university library. Finally, the positive response of the group in general to specific program dimensions generalize quite well to the institution, the vast majority feel at the moment as if they would be quite likely to choose the same doctoral institution, given the opportunity to make this decision again.

This section has also revealed some interesting characteristics of the two degree groups, and the older versus the younger graduates. Of the 29 program dimensions for which evaluations were requested the age groups proved to be statisticallyindependent on 25 of these. The direction of their independence, however, cannot be simply described by generally saying that they were more positive or more negative in their perceptions than the older group. For example, the younger group felt more negative, with respect to the completeness of initial interviews, selectivity of the admissions policy, the general caliber of educational doctoral students and the appropriateness of course work to their professions objectives. However, they felt more satisfied with the balance of course work, felt they had more freedom in choice of course work, but felt more negative about the qualities of instruction. The younger group felt more negative about the language requirement than did the older, but considerably more positive toward the statistic requirement. The younger group saw more student interaction encouraged and rated such interaction as having more value to them than the older group. Likewise, the faculty-student interaction, the younger group tended to see more interaction encouraged and again as having more value. The younger group was both more likely to hold an assistantship, or other staff appointment, and more likely to feel that it was relevant to his program and had considerable educational value. The younger group saw more ongoing research in their fields and participated in it more freely than did the older group. The younger respondents were more likely to see imbalance in their programs in the research height of teaching emphasis, and were considerably more negative with respect to the intellectual value of the dissertation. The younger group felt clearer in the selection of a dissertation problem and felt that their dissertation directors were more helpful. The younger group were more enthusiastic about cooperation in their research, but less enthusiastic about the adequacy of the library. Yet the younger group reflects the same feeling as the older group with respect to the institution where they got their degree.

The Ph.D.'s and the Ed.D.'s manifest a difference in accordance with chi-squared analysis in only 17 of the 29 program dimensions. Unlike the age groups, the degree groups did show considerable consistency along the satisfaction continuum with the Ph.D.'s consistently displaying less positive attitudes toward almost every program dimension. This is true of the views of the selectivity of the admissions policy, the caliber of their fellow doctoral students, and the quality of instruction. Yet they saw themselves as having more freedom within the program. These individuals rated the statistic requirement as having more value than did the Ed.D.'s, but at the same time they were less often obliged to fulfill such a requirement. The Ph.D.'s perceived less encouragement of student-student and faculty-student interaction in their institutions and valued it less than did the Ed.D.'s. With respect to staff appointments, the Ph.D.'s more often saw a relationship between their appointment and their program objectives, but were less convinced of the educational value of such an appointment. The Ph.D.'s either saw a lot of research going on in their field of interest, or very little, yet it is the Ph.D. who is more likely to feel overemphasis on research and underemphasis on teaching in their program. The Ph.D.'s were less likely to give university libraries a high rating and saw less institutional cooperation. Finally, the Ph.D.'s were significantly less enthusiastic about their likelihood to return to the same institution.

The section which follows represents a continuation of program evaluation. Such considerations are surveyed as contributions to professional development of various program aspects, critical periods during the doctoral program, near-critical periods, the kinds of individuals encouraging study, and distracting factors.

The evaluations by the respondents of those program aspects which contributed most to their professional development are presented in Table 149. The first column of this table represents those program aspects considered important by the individuals in the sample, and each person was encouraged to check whichever ones he considered important. The second column represents that single aspect of their program considered to be most important. Since an individual was unable to indicate that a dimension of his program was both important and most important, a better indication of the overall rating of a dimension can be made by adding the rows. When a summation is made, course work remains the most important single program dimension, so rated by 70.7 percent of the sample. Very close behind is the dissertation work rated as important or most important by 69.2 percent. The next most important is interaction with major professors (by 63.5 percent), and independent readings (61.2 percent). It is interesting to note that if the program aspects are ranked in the first column, "interaction with major professor" would rank sixth, while the summed ratings place it third. In the second column of the table, however, interaction with major professor is the most highly rated program aspect by far. More than 15 percent of the sample felt the dissertation was the most important contribution to their professional development, but only 9½ percent felt that course work merited this status. In general, the degree groups agreed with each other on their relative ranking of these aspects of their program, but with some exceptions. (See Table 150) The Ed.D.'s were more likely to attach some

TABLE 149 - ASPECTS OF DOCTORAL PROGRAM CONTRIBUTING MOST PROFESSIONAL DEVELOPMENT: BY TOTAL SAMPLE

	Important	%	Most Important	%	No Response	%
Course work	1264	61.2	197	9.5	606	29.3
Independent reading	1069	51.7	197	9.5	801	38.8
Dissertation work	1118	54.1	313	15.1	636	30.8
Teaching assistantship	342	16.5	88	4.2	1637	79.2
Research assistantship	181	8.8	48	2.3	1838	88.9
Preparation for examinations	385	18.6	44	2.1	1638	79.2
Interaction with major professor	837	40.5	475	23.0	755	36.5
Interaction with other faculty	861	41.6	147	7.1	1059	51.2
Interaction with other students	880	42.6	119	5.8	1068	51.7
Other	69	3.3	49	2.4	1949	94.3

importance to course work, although about the same proportion of each group ranked this phase of their program as most important. Fewer Ed.D.s than Ph.D.s rated the teaching assistantship as important or highly important. However, this may simply reflect the fact that the Ph.D.s were somewhat more likely to hold a teaching assistantship. The same results occurredwith respect to the research assistantship, and it is likely that the same interpretation holds. The age groups on the other hand showed more consistent differences in their valuations of these program phases. The results in Table 151 suggest that the younger group was much less likely to attach importance to independent reading, to the dissertation, but more importance to interaction with other faculty and other students. Teaching and research assistantships were also more often considered as significant program phases by the younger group, but again this could be reflecting the greater incidence of such appointments among the younger group.

At one point in the questionnaire, the question, "During the doctoral program did any critical period occur which resulted in the need to discontimue temporarily your program?" The results in this item are shown in Table 152,and clearly indicate that such was not an uncommon occurrence. Twenty-seven point seven percent responded that one time or another it had been necessary to discontinue temporarily their program. While the vast majority (70.5 percent) indicated that such critical periods did not occur, this finding should be considered in the light of other factors. To discontinue a program is a choice which has meaning primarily to the full-time student. A large proportion of the total sample undertook their program on a part-time basis. It is doubtful that a part-time student, unable to enroll for his three to six hours credit during a particular semester, would indicate that a critical period had occurred. It is also doubtful had this part-time individual decided to postpone his residency for a semester or a year he would check this as a critical period. Hence, it is suggested that the 27.7 percent who did encounter critical periods during their program does in fact constitute a very sizeable group for the reason that it is primarily relevant for full-time students as stated, and represents an underestimate with respect to the total incidence of this kind of event over the total sample. An extremely significant relationship resulted in the comparison across the age groups, (chi-square > 100 with four degrees of freedom) and the direction is in favor of greater incidence of critical periods among the older group. Undoubtedly part of this, but not all, is a cause-effect relationship. That is to say, that a number of the individuals in the older group are members of that group by virtue of the critical periods in the program. At the same time the Ph.D.'s are significantly less likely to encounter critical periods during their programs than Ed.D.'s ($p < .001$). The results are presented in Tables 152 and 153.

As a follow-up question to the preceding one the following was asked: "During the doctoral program did a critical period occur which nearly resulted in your discontinuance and/or required emergency measures to prevent interuption?" The

TABLE 150 - ASPECTS OF DOCTORAL PROGRAM CONTRIBUTING MOST TO PROFESSIONAL DEVELOPMENT: BY DEGREE GROUPS

	Ed.D.				Ph.D.			
	Important		Most Important		Important		Most Important	
	N	%	N	%	N	%	N	%
Course work	853	63.3	131	9.7	407	57.6	64	9.1
Independent reading	701	52.0	128	9.5	363	51.4	69	9.8
Dissertation work	704	52.3	219	16.3	407	57.6	92	13.0
Teaching assistantship	207	15.4	48	3.6	130	18.4	40	5.7
Research assistantship	107	7.9	24	1.8	73	10.3	24	3.4
Preparation for examinations	258	19.2	30	2.2	124	17.6	14	2.0
Interaction with major professor	557	41.4	314	23.3	272	38.5	158	22.4
Interaction with other faculty	581	43.1	96	7.1	274	38.8	49	6.9
Interaction with students	589	43.7	82	6.1	285	40.4	37	5.2
Other	39	2.9	30	2.2	30	4.2	19	2.7

TABLE 151 - ASPECTS OF DOCTORAL PROGRAM CONTRIBUTING MOST TO PROFESSIONAL DEVELOPMENT: BY AGE GROUPS

	Younger				Older			
	Important		Most Important		Important		Most Important	
	N	%	N	%	N	%	N	%
Course work	464	61.3	71	9.4	557	60.2	87	9.4
Independent reading	360	47.6	58	7.7	507	54.8	109	11.8
Dissertation work	414	54.7	87	11.5	504	54.5	169	18.3
Teaching assistantship	177	23.4	44	5.8	100	10.8	20	2.2
Research assistantship	106	14.0	24	3.2	24	4.5	12	1.3
Preparation for examinations	124	16.4	18	2.4	180	19.5	19	2.1
Interaction with major professor	318	42.0	182	24.0	369	39.9	192	20.8
Interaction with other faculty	334	44.1	70	9.2	353	38.2	50	5.4
Interaction with students	353	46.6	51	6.7	350	37.8	46	5.0
Other	39	5.2	22	2.9	19	2.1	20	2.2

TABLE 152 - INCIDENCE OF PROGRAM INTERRUPTIONS: BY DEGREE GROUPS AND TOTAL SAMPLE

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Interruption necessary	401	29.8	167	23.7	572	27.7
No interruption	921	68.4	526	74.5	1457	70.5
No response	24	1.8	13	1.8	38	1.8
Total	1346	100.0	706	100.0	2067	100.0

TABLE 153 - INCIDENCE OF PROGRAM INTERRUPTIONS: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Interruption necessary	122	16.1	346	37.4
No interruption	627	82.9	552	59.7
No response	7	0.9	27	2.9
Total	756	99.9	925	100.0

results of the total sample on this question showed that 25.4 percent did experience such a near critical period (see Table 154). This group that did respond to this item are assumed not to represent, for the most part, the group that responded, "yes", to the previous item. While undoubtedly there is some overlap between these categories: That is to say, some persons may have had both critical periods and near critical periods, it would seem that nearly half of the total sample experienced one or the other kind of crisis during their doctoral program. Chi-squared analysis of the degree groups and age groups, showed no difference between degree groups on incidence of near critical periods, but a very significant difference ($p < .001$) for the age groups. The direction in this case was for more near critical periods in the younger group (see Table 155).

TABLE 154 - INCIDENCE OF NEAR CRITICAL PERIODS: BY DEGREE GROUPS AND TOTAL SAMPLE

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Near critical period occurred	336	24.9	187	26.5	524	25.4
No such period	947	70.3	474	67.1	1434	69.4
No response	64	4.8	45	6.4	109	5.2
Total	1347	100.0	706	100.0	2067	100.0

TABLE 155 - INCIDENCE OF NEAR CRITICAL PERIODS: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Near critical period occurred	150	19.8	280	30.3
No such period	578	76.4	582	62.9
No response	29	3.8	63	6.8
Total	757	100.0	925	100.0

The reasons or causes of critical periods are presented in Table 156. The most common cause is work pressures (14.3 percent), followed by financial problems (12.7 percent), and family problems (7.6 percent). These percentages are not based upon those responding to this item, but on the total sample. Chi-squared analyses indicate that work pressures are significantly likely to be more of a problem among the older group than among the younger group, and among the Ed.D. group than the Ph.D. group (see Tables 156 and 157). Personal health is more likely to be a factor with the older group, as are family problems. No other differences were found between the age and degree groups as they relate to these causal factors.

Individuals in the sample perceived their main sources of encouragement during their program to be major professor (51.6 percent), other staff members (43.5 percent), and spouse (34.1 percent). These results may be seen in Table 158. The

TABLE 156 - CASUES OF CRISES: BY DEGREE GROUPS AND TOTAL SAMPLE

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Family problems	103	7.7	55	7.8	158	7.6
Academic pressures	56	4.2	34	4.8	91	4.4
Personal health	62	4.6	40	5.7	102	4.9
Financial problems	170	12.6	90	12.7	262	12.7
Work pressures	213	15.9	82	11.6	295	14.3
Demands on time	14	1.0	7	1.0	22	1.1
Others	135	10.0	61	8.6	198	9.6

TABLE 157 - CAUSES OF CRISES: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Family problems	36	4.8	87	9.4
Academic pressures	28	3.7	43	4.6
Personal health	23	3.0	66	7.1
Financial problems	88	11.6	128	13.8
Work pressures	39	5.2	205	22.2
Demands on time	7	0.9	12	1.3
Other	56	7.4	107	11.6

sources of encouragement just cited appear in column one and rank highest among those simply listed as providing encouragement. In column two, however, are those individuals listed as providing the most encouragement, and in this case their is no question as to who provides the most important psychological support for the candidates as they work through their degree program. The spouse was checked as most important by 27.1 percent of the sample, and the major professor by 22.0 percent. These two individuals completely dominate the ratings almost to the exclusion of others. The only categories of individuals providing encouragement which seemed to be related to age are parents, who were more encouraging to the

TABLE 158 - INDIVIDUALS WHO PROVIDED ENCOURAGEMENT DURING THE DOCTORAL PROGRAM

	Encouragement N	%	Most Encouragement N	%	No Response N	%
Major professor	1066	51.6	455	22.0	546	26.4
Other staff members	899	43.5	103	5.0	1065	51.5
Acquaintances	534	25.8	64	3.1	1469	71.1
Parents	415	20.1	46	2.2	1606	77.7
Spouse	705	34.1	560	27.1	802	38.8
Other relative	171	8.3	16	0.8	1880	91.0
Former employer	206	10.0	27	1.3	1834	88.7
Prespective employers	75	3.6	8	0.4	1984	96.0
Colleagues	68	3.3	28	1.4	1971	95.4
Other	114	5.5	51	2.5	1902	92.0
Self	21	1.0	9	0.4	2033	98.4

younger, and "other" which was more often checked as a category by the older group. The degree groups differed not at all with respect to any of these encouraging individuals.

The final question in this section on program evaluation can be described as "distracting factors." The questionnaire item was: "Were there any personal recurring factors which prevented wholehearted attention to doctoral study?" The general results indicate that 44.8 percent of the total sample felt that there had been distractions during their program (see Table 159). The reason, or cause, of distraction is not at all clear. The response to this particular questionnaire item was not as complete as would be desirable. This is probably due, in part, to the fact that this item was the third in a series of related items requesting reasons underlying program problems. Of those who felt distracted, the most prominent reasons given were, in order of diminishing importance, excessive demands on time, inadequate financing, work pressures, and family problems.

TABLE 159 - INCIDENCE OF PERSISTENT OR RECURRING FACTORS PREVENTING WHOLEHEARTED ATTENTION TO DOCTORAL STUDY

	N	%
Yes	925	44.8
No	1055	51.0
No response	87	4.2
Total	2067	100.0

TABLE 160 - DISTRACTING FACTORS

	Persistent	%	Most Persistent	%	No Response	%
Inadequate financing	214	10.4	91	4.4	1762	85.2
Housing problems	37	1.8	8	0.4	2022	97.8
Family problems	176	8.5	66	3.2	1825	88.3
Excessive demands on time devoted to non-course duties	275	13.3	124	6.0	1668	80.7
Personal health	52	2.5	10	0.5	2005	97.0
Academic pressures	100	4.8	14	0.7	1953	94.5
Professional relationships	48	2.3	15	0.7	2004	97.0
Work pressures	123	6.0	110	5.3	1834	88.7
Other	22	1.1	11	0.5	2034	98.4

In summary, probably as many as two out of three of these graduates in education encountered a critical period, a near critical period, or persistent distractions during their doctoral programs. The causes of these problems were varied or unique to the person, but financial problems and work pressures represented the causesnamed most often.

Present Professional Aspirations

This section is concerned with such factors as the title associated with present position, location by state of present position, whether or not present position is in fact a new position or a return to a position held prior to the degree, and whether or not this first position subsequent to receiving the degree in an institution which itself grants doctorates in education. In addition, data concerning salary for the first year on the job are reported, along with their opinions about the increment in salary due to receipt of their degree. Also of concern is the kind of institution at which the respondents are presently employed, along with the kind of institution to which they aspire, division of time in various roles in their present position, along with their aspirations on this point, the extent to which they are at present involved in teacher preperation, along with their feelings about the extent to which they would like to be involved, and the level of students with which they presently work, along with the level of students with which they would prefer to work. Finally the feeling of the respondents about the extent to which their aspirations can be realized within their present employing organization.

In all there were 2487 people who received their degree during the time interval of one year. Of special interest to the profession generally, and to those individuals in the profession who had the responsibility of filling staff vacancies in the lower level of rank, is the matter of the proportion of this number that is actually available on the job market. In order to present some data relevant to this question, the following procedure was used. At a later point in the questionnaire the respondents were asked to list in reverse chronological order the full-time positions held after beginning the doctoral program and prior to the receipt of the degree. Coders were then requested to look at both the present position and the most recent position held during the program prior to completion of the degree, and code them as (1) same position, (2) same institutional organization with different position or rank, (3) different institution or organization, and (4) no regular staff position held during the doctoral program. The results are presented in Table 161 and indicate that 40.3 percent of the sample held the same position prior to the receipt of the degree and in the year subsequent to receipt of the degree. Now there are at least two kinds of people within this group of 40 percent: There are those who left their program and accepted a position before the degree was completed, probably writing their dissertation on the job. Another group had held a paid position in their present institution early in their program and took leave to complete their degree with a commitment or option to return after completing it. An additional 11.6 percent returned to the same institutional organization, but the receipt of the degree led to either a different position within the organization or a promotion in rank. In all then, slightly more than 50 percent of the total sample did not really become available on the job market upon receipt of the degree. An additional 26.7 percent did in fact change institutions or organizations upon receipt of the degree, but had held full-time staff appointments in some institution prior to the receipt of the degree. Only 19.3 percent apparently went through their program, held no full-time position during the program, and went directly from school to a job. These data suggest that less than half of the total sample were actually available on the job market upon receipt of their degree, and the major proportion of this residual group were recruited not directly from the institutions conferring the degree, but from employing institutions. It is of course unknown just what proportion of the five hundred fifty-two individuals that did in fact change positions and institutions upon receipt of the degree, could have returned to the same institution or the same position held during the program prior to receipt of the degree.

The extent to which individuals are likely to be returning to the same institution or position is degree related, with the Ed.D.s much more likely to be returning to the same position or institution and considerably less likely than the Ph.D.s to have held no position. Likewise, the younger student as opposed to the older is much less likely to be returning to the same position or institution, and is much more likely to be on the job market. Among major fields, it would appear that administration majors, practical arts majors, psychology majors, and student personnel majors are the most likely to be returning to the same position. On the other hand, educational psychology majors and higher education majors are least likely to be returning to the same position. These results may be seen in Tables 161, 162, and 163.

Looking at the present position from the standpoint of title, the results indicate that the majority, approximately 56 percent, presently enjoy academic rank at a college or university. Thirty point one percent are presently holding the rank of assistant professor, 12.5 percent associate professor, and the remainder are either deans, full professors or holding some kind of position in the adminstrative hierarchy of the institution. An additional 6.6 percent hold some kind of position in the higher education setting which does not carry a common academic title (e.g., research associate, etc.). Approximately three out of eight of these recent graduates are not employed in colleges or universities. Chi-squared analysis show differences with respect to the degree group ($p < .01$), and the direction of independence seems to be that the Ed.D.s are much more likely to be working in the non-university setting. The results for the different age groups indicate also that the younger group is less likely to hold a position in a non-university setting, but within the university setting the older group is more likely to hold the higher academic ranks.

How do these recent graduates distribute themselves geographically upon receipt of their degree? The states in which the respondents are presently working are presented in Table 6 , in Appendix A . The results show no striking

TABLE 161 - RELATION OF PRESENT POSITION TO POSITION HELD PRIOR TO RECEIPT OF DEGREE: TOTAL SAMPLE AND BY DEGREE GROUPS

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Same position	587	43.6	238	33.8	834	40.3
Same institution or organization but different position or rank	148	11.0	92	13.1	241	11.6
Different institution or organization	362	26.9	188	26.7	552	26.7
No position prior to degree	229	17.0	168	23.9	399	19.3
No response	19	1.4	18	2.6	41	2.1
Total	1345	99.9	704	100.1	2067	100.0

TABLE 162 - RELATION OF PRESENT POSITION TO POSITION HELD PRIOR TO RECEIPT OF DEGREE: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Same position	220	29.2	460	49.7
Same institution or organization but different position or rank	65	8.6	129	13.9
Different institution or organization	225	29.9	225	24.3
No position prior to degree	231	30.7	92	9.9
No response	12	1.6	19	2.1
Total	753	100.0	925	99.9

trend indicating that the graduates are grouping themselves in particular geographical areas to the neglect of others. Maine and Alaska are the only states that have not attracted one or more of the individuals from the sample. The southern states seem to attract about as many as they produce by virtue of birth. Many of the Great Plains States which were designated as over-producers earlier in this report do not retain as many as they produce. It is also interesting to note that slightly more than one out of four (27.0 percent) of these graduates are employed in three states, New York, California or Illinois.

TABLE 163 - RELATION OF PRESENT POSITION TO POSITION HELD PRIOR TO RECEIPT OF DEGREE: BY MAJOR FIELDS

	Same Position		Same Institution different position or rank		Different Institution		No Position		Total
	N	%	N	%	N	%	N	%	N
Special education	28	40.6	7	10.1	19	27.5	14	20.3	69
Administration	226	45.1	44	8.8	153	30.5	71	14.2	501
Curriculum	42	40.0	20	19.0	28	26.7	15	14.3	105
Physical education	18	37.5	9	18.8	7	14.6	12	25.0	48
Practical arts	46	44.2	17	16.3	20	19.2	20	19.2	104
Social foundations	20	40.8	6	12.2	10	20.4	12	24.5	49
Subject areas	49	40.8	18	15.0	37	30.8	15	12.5	120
Math and science education	27	35.5	15	19.7	10	13.2	19	25.0	76
Educational psychology	38	31.7	7	5.8	37	30.8	37	30.8	120
Secondary education	33	36.3	14	15.4	27	29.7	13	14.3	91
Elementary education	37	33.0	17	16.5	26	25.2	25	24.3	103
Higher education	20	37.0	4	7.4	11	20.4	19	35.2	54
Guidance	69	37.5	18	9.8	55	29.9	39	21.2	184
Psychology	48	43.2	11	9.9	30	27.0	20	18.0	111
Student personnel	15	44.1	2	5.9	12	35.3	5	14.7	34

As students, the two thousand sixty-seven respondents represent one hundred eight institutions. A question which should have considerable professional interest is the extent to which these individuals redistributed themselves among the same one hundred eight degree granting institutions, as opposed to those institutions which do not grant the doctorate. This latter group of course includes the vast majority of institutions of higher learning in the country, and a substantial proportion of those institutions concerned with teacher training. The results in Table 166, indicate that one-fourth of the sample is presently employed by doctorate producing institutions. However, when the 37.5 percent, which are not employed by a college or university are discounted it is possible to say that of the group employed by colleges or universities, 41.6 percent are employed by institutions which grant the doctoral degree in education. The results further

TABLE 164 - TITLE OF PRESENT POSITION: TOTAL SAMPLE AND BY DEGREE GROUPS

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Assistant professor	348	25.8	272	38.5	632	30.1
Associate professor	180	13.4	77	10.9	259	12.5
Professor	49	3.6	19	2.7	69	3.3
Dean	37	2.7	20	2.8	57	2.8
Assistant dean or other administrative position	95	7.1	49	6.9	147	7.1
Other	75	5.5	61	8.6	137	6.6
Not employed by college or university	558	41.4	207	29.3	769	37.2
No response	5	0.4	1	0.1	6	0.3
Total	1347	99.9	706	99.8	2067	99.9

TABLE 165 - TITLE OF PRESENT POSITION: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Assistant professor	328	43.3	179	19.4
Associate professor	63	8.3	150	16.2
Professor	10	1.3	51	5.5
Dean	24	3.2	22	2.4
Assistant dean or other administrative position	45	5.9	69	7.5
Other	61	8.0	55	5.9
Not employed by college or university	224	29.6	398	43.0
No response	2	0.3	1	0.1
Total	757	99.9	925	100.0

indicate that the younger graduates are much more likely to be employed by a college or university, and are more likely to be employed by a doctoral degree granting institution than is true of the older graduates. With respect to the degree group, those receiving the Ph.D. degree are likewise less likely to be employed outside the college or university setting and are more likely to be employed by institutions having doctoral programs in education, than is the case

TABLE 166 - INCIDENCE OF PRESENT EMPLOYMENT BY DOCTORATE PRODUCING INSTITUTIONS: TOTAL SAMPLE AND BY DEGREE GROUPS

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Not employed by college or university	566	42.0	205	29.0	775	37.5
Employed by doctorate producing institutions	284	21.1	241	34.1	528	25.5
Not employed by doctorate producing institutions	485	36.0	251	35.6	742	35.9
No response	12	0.9	9	1.3	22	1.1
Total	1347	100.0	706	100.0	2067	100.0

TABLE 167 - INCIDENCE OF PRESENT EMPLOYMENT BY DOCTORATE PRODUCING INSTITUTIONS: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Not employed by college or university	225	29.7	405	43.8
Employed by doctorate producing institutions	246	32.5	184	19.9
Not employed by doctorate producing institutions	280	37.0	326	35.2
No response	6	0.8	10	1.1
Total	757	100.0	925	100.0

for the Ed.D. recipient ($p < .001$). Some systematic differences over major fields could reasonably be expected with respect to this question, and chi-squared analysis indicates that such is the case ($p < .001$). The vast majority of the chi-square is accounted for in the column labeled "not employed by college or university" where the results indicate that many more than expected of administration majors, psychology majors and curriculum majors are employed outside the higher educational setting, and fewer than expected of the physical education majors, practical arts majors, and higher education majors are employed in this

TABLE 168 - INCIDENCE OF PRESENT EMPLOYMENT BY DOCTORATE PRODUCING INSTITUTIONS: BY MAJOR FIELDS

	Not employed by college or university		Employed by doctorate producing institution		Not employed by doctorate producing institution		Total
	N	%	N	%	N	%	N
Special education	23	33.3	24	34.8	22	31.9	69
Administration	324	64.5	77	15.3	99	19.7	502
Curriculum	44	41.5	20	18.9	38	35.8	106
Physical education	5	10.4	15	31.3	27	56.3	48
Practical arts	12	11.4	41	39.0	51	48.6	105
Social foundations	11	22.4	17	34.7	20	40.8	49
Subject areas	33	27.5	26	21.7	59	49.2	120
Math and science education	16	21.1	26	34.2	34	44.7	76
Educational psychology	38	31.7	40	33.3	40	33.3	120
Secondary education	28	30.8	19	20.9	43	47.3	91
Elementary education	24	23.3	29	28.2	49	47.6	103
Higher education	6	11.1	15	27.8	32	59.3	54
Guidance	59	32.1	59	32.1	65	35.3	184
Psychology	53	47.3	30	26.8	28	25.0	112
Student personnel	9	26.5	10	29.4	14	41.2	34

setting. There are, however, some trends in some fields relative to the likelihood of holding a position in an institution granting the doctorate. Looking at the absolute percentage figures it would appear that practical arts majors have the highest probability of being employed by an institution granting the doctorate in education, while administration majors are the least likely to be employed in this kind of institution. Looking, however, at the relative proportion over the second and third columns of the table some additional interpretations can be made. For example, of those special education majors that are employed in colleges or universities, more are employed by institutions granting the doctoral degree than by institutions not granting the doctoral degree. This represents a reversal in trend one would expect upon the basis of the results of the total sample, which show that of those employed in college and university settings, about 40 percent would be employed by the doctoral producing institutions. An inspection of the second and third column does indicate that in general for each field more are employed by the non-degree granting institutions. However for special education, educational psychology, and psychology the general trend does not hold. At the same time the trend is even more pronounced for certain fields, namely, secondary education, higher education, the subject areas, and curriculum. In these cases the odds are fully two-to-one that the graduates will be employed in institutions not granting the doctorate.

The expected income of the respondents for 1964-1965 ranges from less than three thousand dollars to more than twenty thousand dollars. The median seems to be slightly over ten thousand dollars, with the modal category clearly located in the interval from ten thousand to twelve thousand five hundred. These results are shown in Table 169. These expected incomes are not just base salaries, but include salaries, consultant fees, and other incomes from professional activity. Only income from investment and other sources is excluded. Hence, if these figures are compared to base salaries typically offered by institutions to new degree recipients, the figures may appear to be somewhat inflated. However, the decision to use total income from professional activities would seem to be more defensible on the grounds that base salary is subject to a variety of definitions both within and between institutions. Looking again at the income distribution, there appears to be a substantial number earning relatively low salaries for the year. This is probably due to several factors, namely: There is a definite increase in the number of individuals who undertake a year of post-doctoral study immediately upon completion of their degree; certain of the married women with families elect to work on a part-time basis only; and certain of the respondents entered into rather low salary service-type activities such as, missionary work, Peace Corps work, etc. The degree groups do not show a pronounced difference in expected income, chi-square being significant at the 10 percent level. The trend to the extent that one was present, generally favored higher salaires for the Ed.D.'s but with a reversal in the category over $20,000, where more Ph.D.'s than Ed.D.'s earn salaries at this level (see Table 170). The age groups show a pronounced difference in favor of higher income for the older group ($p < .001$). The greater part of the chi-square is accounted for at the high salary level with the younger group very poorly represented in the high salary bracket (see Table 171). Analysis of degree and age groups versus income required collapsing a number of the income categories to meet chi-square requirements for minimum expected frequencies in the cell. By using the three income categories of under $10,000 to $12,500, and over $12,500 the analyses showed the results described. A similar procedure was used for major field versus income and the results indicate a highly singificant chi-square ($p < .001$). Closer analysis of these results indicates that the field of administration counts for the lions share of the chi-square, with this group being greatly underrepresented at the under $10,000 level, highly overrepresented in the over $12,500 level, but represented about as expected in the $10,000 to $12,500 range (see Table 172). Most of the remainder of the chi-square was accounted for in the over $12,500 categories with all other fields either represented about at expected frequency or underrepresented. Most underrepresented at the high salaries are elementary majors, guidance majors, and subject area majors. Most likely to be found at the under $10,000 level are the physical education majors and those majoring in the subject areas.

The respondents were also asked the extent to which their income had been

TABLE 169 - EXPECTED INCOME FROM FIRST YEAR POSITION. (1964-1965)

	N	%
Less than $3,000	19	0.9
$3,000 to $3,999	5	0.2
$4,000 to $4,999	10	0.5
$5,000 to $5,999	16	0.8
$6,000 to $6,999	44	2.1
$7,000 to $7,999	123	6.0
$8,000 to $8,999	239	11.6
$9,000 to $9,999	352	17.0
$10,000 to $12,499	775	37.5
$12,500 to $14,999	283	13.7
$15,000 to $19,999	138	6.7
$20,000 and over	28	1.4
No response	35	1.6
Total	2067	100.0

TABLE 170 - EXPECTED INCOME FROM FIRST YEAR POSITION (1964-1965): BY DEGREE GROUPS

	Under $10,000		$10,000-12,500		Over $12,500		Total
	N	%	N	%	N	%	N
Ed.D.	518	38.9	507	38.1	305	22.9	1330
Ph.D.	284	41.2	265	38.5	140	20.3	689
Total	802	39.7	772	38.2	445	22.1	2019

TABLE 171 - EXPECTED INCOME FROM FIRST YEAR POSITION (1964-1965): BY AGE GROUPS

	Under $10,000		$10,000-12,500		Over $12,500		Total
	N	%	N	%	N	%	N
Younger	341	45.6	297	39.8	109	14.6	747
Older	342	37.8	311	34.4	252	27.8	905
Total	683	41.3	608	36.8	361	21.9	1652

increased as a result of having earned the doctorate. The responses are shown in Table 173, and indicate that the modal response is that the doctorate produced no increase in yearly income. Although this category is clearly the modal one, nearly three quarters of the respondents indicated some financial reward upon completing the degree. The median increment would appear to be very slightly over one thousand dollars. It is difficult to say what meanings are hidden in the very large increments which are reported by the respondents. For instance, 20 percent of the group reported increments in excess of three thousand dollars. It is quite likely, however, that a substantial proportion of this group are reporting differences of increments in their present position relative to part-time staff appointments held during the doctoral program. Some evidence in support of this interpretation can be seen in Table 175, where substantial differences are reported by the younger group in contrast with the older group (chi-square indicates independence at the .001 level). May it be remembered that the younger group in general was more likely to have held part-time staff appointments, were more likely to have undertaken their program on a full time basis, and were much less likely to be returning to the same job. The same is true of the degree groups. The Ed.D.'s were much more likely to report no increment in salary due to the degree or relatively low increments, while the Ph.D.'s much less often reported no increments, and at the same time tended to dominate the larger increments (see Table 174). The increments in salary perceived as due to receipt of the degree was also related to major fields according to chi-squared analysis ($p < .01$). The interpretation of this finding, however, is somewhat difficult because the chi-square does not seem to be associated with any particular field or any particular increment category. Given an expected distribution across increment categories, however, it is possible to look at each major field and note deviations or lack of

TABLE 172 - EXPECTED INCOME FROM FIRST YEAR POSITION (1964-1965): BY MAJOR FIELDS

	Under $10,000		$10,000 12,500		Over $12,500		Total
	N	%	N	%	N	%	N
Special education	23	34.3	31	46.3	13	19.4	67
Administration	127	25.8	170	34.6	195	39.6	492
Curriculum	40	39.2	36	35.3	26	25.5	102
Physical education	28	59.6	16	34.0	3	6.4	47
Practical arts	49	47.1	42	40.4	13	12.5	104
Social foundations	28	59.6	16	34.0	3	6.4	47
Subject areas	72	61.0	35	29.7	11	9.3	118
Math and science education	35	47.3	29	39.2	10	13.5	74
Educational psychology	48	40.3	51	42.9	20	16.8	119
Secondary education	41	45.1	37	40.7	13	14.3	91
Elementary education	48	47.5	48	47.5	5	5.0	101
Higher education	20	37.0	16	29.6	18	33.3	54
Guidance	78	42.6	84	45.9	21	11.5	183
Psychology	42	37.5	41	36.6	29	25.9	112
Student personnel	16	47.1	14	41.2	4	11.8	34
Total	695	39.8	666	38.2	384	22.0	1745

TABLE 173 - INCREMENT IN INCOME RESULTING FROM RECEIPT OF THE DEGREE

	N	%
None	560	27.1
Less than $500	219	10.6
$500 to $999	237	11.5
$1,000 to $1,499	218	10.5
$1,500 to $1,999	136	6.6
$2,000 to $2,499	173	8.4
$2,500 to $2,999	104	5.0
$3,000 to $3,999	195	9.4
$4,000 to $4,999	122	5.9
More than $5,000	103	5.0
Total	2067	100.0

deviations from that pattern. For example, considerably more administrators than would be expected report no increment due to receipt of the degree, and considerably less report increments greater than two thousand dollars. On the other

TABLE 174 - INCREMENT IN INCOME RESULTING FROM RECEIPT OF THE DEGREE: BY DEGREE GROUPS

	Ed.D.		Ph.D.	
	N	%	N	%
None	386	28.7	173	24.5
Less than $500	149	11.1	69	9.8
$500 to $999	173	12.8	63	8.9
$1,000 to $1,499	150	11.1	66	9.3
$1,500 to $1,999	87	6.5	47	6.7
$2,000 to $2,499	101	7.5	72	10.2
$2,500 to $2,999	64	4.8	39	5.5
$3,000 to $3,999	115	8.5	78	11.0
$4,000 to $4,999	68	5.0	51	7.2
More than $5,000	54	4.0	48	6.8
Total	1347	100.0	706	99.9

TABLE 175 - INCREMENT IN INCOME RESULTING FROM RECEIPT OF THE DEGREE: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
None	148	19.6	307	33.2
Less than $500	55	7.3	123	13.3
$500 to $999	63	8.3	130	14.1
$1,000 to $1,499	76	10.0	98	10.6
$1,500 to $1,999	48	6.3	59	6.4
$2,000 to $2,499	81	10.7	61	6.6
$2,500 to $2,999	58	7.7	28	3.0
$3,000 to $3,999	107	14.1	54	5.8
$4,000 to $4,999	61	8.1	37	4.0
More than $5,000	60	7.9	28	3.0
Total	757	100.0	925	100.0

hand, fewer math or science education majors than would be expected report no increments. Educational psychology majors depart from total sample expectancies in increments up to a thousand dollars, while psychology majors seemed most often to report increments in excess of two thousand dollars. Practical arts majors distribute themselves over the increment categories almost exactly as would be

TABLE 176 - INCREMENT IN INCOME RESULTING FROM RECEIPT OF THE DEGREE: BY MAJOR FIELDS

	None		Under $1,000		$1,000 2,000		More than $2,000		
	N	%	N	%	N	%	N	%	N
Special education	17	24.6	13	18.8	10	4.5	29	42.0	69
Administration	161	32.1	116	23.1	78	15.5	147	29.3	502
Curriculum	30	28.3	30	28.3	17	16.0	29	27.4	106
Physical education	9	18.8	14	29.2	13	27.1	12	25.0	48
Practical arts	27	25.7	25	23.8	20	19.0	33	31.4	105
Social foundations	12	24.5	15	30.6	7	14.3	15	30.6	49
Subject areas	35	29.2	36	30.0	21	17.5	28	23.3	120
Math and science education	11	14.5	17	22.4	17	22.4	31	40.8	76
Educational psychology	31	25.8	13	10.8	25	20.8	51	42.5	120
Secondary education	22	24.2	21	23.1	18	19.8	30	33.0	91
Elementary education	33	32.0	25	24.3	18	17.5	27	26.2	103
Higher education	18	33.3	3	5.6	8	14.8	25	46.3	54
Guidance	37	20.1	40	21.7	33	17.9	74	40.2	184
Psychology	25	22.3	23	20.5	13	11.6	51	45.5	112
Student personnel	5	14.7	8	23.5	9	26.5	12	35.3	34
Total	473	26.7	399	22.5	307	17.3	594	33.5	1773

expected on the basis of the total sample. These results may be found in Table 176.

While these recent graduates tended to distribute themselves quite widely geographically, they do not show great diversity with respect to the kind of organization where they are presently employed. The distribution of the sample according to kind of organization is presented in Table 177. It would appear that the largest employer of these recent graduates is the large university accounting for about 29.4 percent of the sample. The public schools and small colleges account for slightly more than 50 percent of the total sample with these two kinds of organizations equally represented. In all about 44.5 percent of the sample is employed in higher education setting, and counting the private schools, approximately 28.4 percent are employed in schools at the pre-college level. A substantial

TABLE 177 - TYPE OF ORGANIZATION PRESENTLY EMPLOYING DOCTORAL GRADUATES: TOTAL SAMPLE AND BY DEGREE GROUPS

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Small college, public or private	348	25.8	168	23.8	519	25.1
Private or denominational school	38	2.8	31	4.4	69	3.3
Large university	328	24.4	272	38.5	607	29.4
Public school	413	30.7	102	14.4	519	25.1
State or federal governmental agency	73	5.4	36	5.1	109	5.3
Private business-profit making institution	15	1.1	5	0.7	20	1.0
Non-profit organization or foundation	32	2.4	31	4.4	63	3.0
Self employed or private practice	3	0.2	7	1.0	10	0.5
Other	60	4.5	29	4.1	89	4.3
No response	37	2.7	25	3.5	62	3.0
Total	1347	100.0	706	99.9	2067	100.0

TABLE 178 - TYPE OF ORGANIZATION PRESENTLY EMPLOYING DOCTORAL GRADUATES: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Small college, public or private	188	24.8	237	25.6
Private or denominational school	22	2.9	39	4.2
Large university	267	35.3	214	23.1
Public school	138	18.2	277	29.9
State or federal governmental agency	37	4.9	52	5.6
Private business-profit making institution	10	1.3	9	1.0
Non-profit organization or foundation	28	3.7	26	2.8
Self employed or private practice	5	0.7	3	0.3
Other	41	5.4	37	4.0
No response	21	2.8	31	3.4
Total	757	100.0	925	100.0

number are employed by governmental agencies, and an additional 4.3 percent were unable to classify their present position within the categories provided.

Chi-squared analysis of the present employing organization with age groups showed statistical independence ($p < .01$). The age groups seem to be represented about equally well in the small colleges, but the younger group is considerably

TABLE 179 - TYPE OF ORGANIZATION PRESENTLY EMPLOYING DOCTORAL GRADUATES: BY MAJOR FIELDS

	Small College		Large University		Public School		All Other*		Total
	N	%	N	%	N	%	N	%	N**
Special education	14	20.3	29	42.0	9	13.0	14	20.2	69
Administration	73	14.5	85	16.9	263	52.4	74	15.8	502
Curriculum	30	28.3	21	19.8	39	36.8	10	9.3	106
Physical education	20	41.7	16	33.3	6	12.5	6	12.6	48
Practical arts	32	30.5	52	49.5	8	7.6	12	11.5	105
Social foundations	12	24.5	17	34.7	6	12.2	13	27.5	49
Subject areas	52	43.3	28	23.3	19	15.8	17	14.1	120
Math and science education	25	32.9	28	36.8	9	11.8	12	15.8	76
Educational psychology	24	20.0	46	38.3	11	9.2	28	23.4	120
Secondary education	36	39.6	24	26.4	20	22.0	11	12.1	91
Elementary education	38	39.6	33	32.0	22	21.4	9	8.7	103
Higher education	24	44.4	18	33.3	1	1.9	9	16.8	54
Guidance	35	19.0	59	32.1	36	19.6	50	27.3	184
Psychology	16	14.3	29	34.8	16	14.3	33	30.4	112
Student personnel	9	26.5	14	41.2	9	26.5	2	30.4	34

*In order to meet minumum cell-frequency requirements for chi-squared analysis, it was necessary to combine categories for this table.

**The figures in this column are for the total number of each major field represented. All percentage in a given row are based on the "N" in this column. For a number of majors there is a discrepancy between the total "N" and the sum of the categories. This is due to the omission of the "no response" category from the table.

more likely to be employed by a large university, while the older group is more likely to be employed in the public schools (see Table 178). There is a very significant difference ($p < .001$) between degree groups and employing organizations (see Table 177). The ratio of Ed.D.'s to Ph.D.'s holds fairly well among the small colleges with the Ed.D.'s very slightly over represented On the other hand, many fewer than expected Ed.D.'s are to be found in the large universities and relatively few Ph.D.'s are likely to be found in the public school. Ph.D.'s are somewhat more likely to be employed by non-profit organizations, and more

TABLE 180 - TYPE OF EMPLOYING ORGANIZATION TO WHICH DOCTORAL GRADUATES ASPIRE: TOTAL SAMPLE AND BY DEGREE GROUPS

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Small college, public or private	403	29.9	157	22.2	564	27.3
Private or denominational school	35	2.6	25	3.5	60	2.9
Large university	481	35.7	344	48.7	833	40.3
Public school	175	13.0	32	4.5	207	10.0
State or federal governmental agency	29	2.2	10	1.4	39	1.9
Private business-profit making institution	10	0.7	7	1.0	17	0.8
Non-profit organization or foundation	7	0.5	19	2.7	26	1.2
Self employed or private practice	9	0.7	11	1.6	20	1.0
Other	61	4.5	33	4.7	94	4.5
No response	137	10.2	68	9.6	207	10.0
Total	1347	100.0	706	99.9	2067	99.9

TABLE 181 - TYPE OF EMPLOYING ORGANIZATION TO WHICH DOCTORAL GRADUATES ASPIRE: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Small college, public or private	188	24.8	279	30.2
Private or denominational school	18	2.4	36	3.9
Large university	366	48.3	303	32.8
Public school	56	7.4	97	10.5
State or federal governmental agency	13	1.7	21	2.3
Private business-profti making institution	6	0.8	8	0.9
Non-profit organization or foundation	10	1.3	12	1.3
Self employed or private practice	12	1.6	6	0.6
Other	28	3.7	49	5.3
No response	60	7.9	114	12.3
Total	757	99.9	925	100.1

likely to be self employed. Among major fields it would appear that those individuals majoring in higher education, the subject areas, and physical education are most likely to be found in the small colleges, while psychology majors, and administration majors are least likely to be found in these settings (see Table 179). The majors most likely to be employed by the large universities immediately upon receipt of their degree are practical arts majors, special education majors, and student personnel majors. On the other hand, large universities are least likely to employ individuals with brand new degrees from administration, curriculum, and the subject fields. The public schools employ more than one half of the administration majors and more than a third of the curriculum majors. Least likely to be employed by the public schools are higher education majors, practical arts majors, and educational psychology majors. These results may be seen in Table 179.

By posing to the respondents the same categories of employing organizations at a later point in the questionnaire, only this time under the question: "In what kind of organization would you like to be employed?", it is possible to gain some insight into the aspirations of the sample. The distribution of responses on this item is shown in Table 180. The results indicate that 40.3 percent of the sample would like to be employed by a large university, 10 percent by public schools, and 27.3 percent by small colleges (see Table 180). A considerable number that failed to respond to this item (10.0 percent) suggest that the actual percentages reported in other categories may be somewhat deflated, hence it would be unreasonable to adjust the percentages on the basis of those responding. Without such adjustment however, it seems very clear that the large university is seen as an attractive setting to many of the respondents. It also seems clear that the group presently employed in the public schools would prefer to move into college level work. State and federal agencies are apparently not perceived as an organizational setting, so indicated by the fact that although 5.3 percent are those presently employed by such agencies only 1.9 percent would like to be so employed. The age groups again differed significantly with respect to the organization by which they would like to be employed ($p < .01$). The younger group is much more likely to desire employment in a large university, much less likely to desire employment in public schools, much less likely to desire employment in other small colleges, and more likely to respond to this item (see Table 181). A significant chi-square would result on the differences between these two groups on the basis of the "large university" category alone. The degree groups also showed statistical independence ($p < .001$) with the Ed.D.'s much more desirous of employment with the small colleges and the public schools, and the Ph.D.'s aspiring to the large universities (see Table 180). In looking at the organizational distribution of the various majors at present, and that to which they aspire, two rather striking findings are apparent (see Tables 182 and 179). First, the desire to move out of the public school setting is uniform across all fifteen major fields. Secondly, the desire to move into large universities is again uniform across all fifteen major fields. In the case of the small colleges the proportions desirous of working in this setting are sometimes greater and sometimes less than the present proportions found in this setting. A significant variable related to an increase seems to be the proportion presently employed in the public schools. In other words, the proportion of administrators desirous of teaching in small colleges almost doubles, but administrators are presently most often employed by the public schools. Math and science education majors show an increase in proportion desirous of teaching in small colleges, but this increase seems to be entirely due or accounted for by the decrease in proportion desiring to remain in public schools. It is possible that these findings reflect a sequence plus a contingency. That is to say, that if an individual is at present employed in a small college he is probably desirous of moving to a large university. If he is employed, however, in the public schools, he is quite likely to desire employment in the small colleges. The sequence seems to be that from the public schools to the small colleges to the large university.

TABLE 182 - TYPE OF EMPLOYING ORGANIZATION TO WHICH DOCTORAL GRADUATES ASPIRE: BY MAJOR FIELDS

	Small college		Large university		Public school		Other		Total
	N	%	N	%	N	%	N	%	N
Special education	14	20.3	33	47.8	4	5.8	11	15.8	69
Administration	137	27.3	139	27.7	131	26.1	56	11.2	502
Curriculum	31	29.2	42	39.6	11	10.4	11	10.3	106
Physical education	20	41.7	19	39.6	2	4.2	1	2.1	48
Practical arts	28	26.7	57	54.3	2	1.9	11	10.5	105
Social foundations	10	20.4	22	44.9	1	2.0	12	24.5	49
Subject areas	39	32.5	44	36.7	4	3.3	10	7.5	120
Math andscience education	32	42.1	28	36.8	1	1.3	9	11.8	76
Educational psychology	27	22.5	61	50.8	3	2.5	16	13.3	120
Secondary education	31	34.1	39	42.9	6	6.6	9	9.9	91
Elementary education	30	29.1	48	46.6	7	6.8	8	7.8	103
Higher education	15	27.8	25	46.3	0	0.0	8	16.7	54
Guidance	51	27.7	77	41.8	10	5.4	28	15.1	184
Psychology	16	14.3	47	42.0	8	7.1	25	22.4	112
Student personnel	11	32.4	15	44.1	2	5.9	4	11.7	34

The main contingency seems to be present place of employment. Although the data do reveal the direction of a general trend, this particular analysis does not reveal, in fact it obscures any information about reverse trends. There is undoubtedly a minority of those presently employed by large universites that are desirous of returning to public schools or small colleges and this trend, small though it may be, probably also interacts with major fields. It should also be noted that desire to move into a different kind of organizational setting is far from equivalent to the decision to move. In the case of school administrators for example, although the higher education setting seems attractive to many, such considerations as salary and autonomy could outweigh attractiveness in the actual decision to move.

The respondents in their present position only rarely can describe their job in terms of a single responsibility. It is clear from Table 183 that the vast majortiy allocate their time among various responsibilities. In fact only approximately 15 percent of the total sample categorized their responsibility in the last category of the table (81 percent to 100 percent of time). Looking at the various job dimensions, not unexpectedly, teaching and preparation involve the largest single category of the responses. But interestingly enough, less than two thirds of the sample indicate some teaching responsibility, hence, more than one third of the total sample presently hold positions having no teaching responsibilities whatsoever. Fifty-seven percent of the sample included a part of their job description as counseling, advising, individual case work, etc. The job dimension most likely not included is writing, research and other creative work. A rather surprising number include among their responsibilities, administration and supervision, 55.1 percent and 44.1 percent respectively. While these figures just reported reveal presence versus absence of involvement in various responsibilities, further insight can be gained by looking at the distribution of time devoted to these responsibilities. It is also clear that by scanning across rows in Table 183 that most distributions of time are heavily skewed in the direction of greater involvement with the various responsibilities. For example, it is highly unlikely that an individual holds a position involving more than 20 percent of time devoted to committee work or 10 percent of time devoted to service. It is rare indeed for these recent graduates to be devoting a great deal of time to research and writing. On the other hand, the distribution of time devoted to teaching and preparation is much more nearly rectangular with only a scarcely discernable peak at 41 to 50 percent. The age groups manifest evidence of independence with respect to certain of the job dimensions. For example, the younger

TABLE 183 - TIME ALLOCATION OF RESPONSIBILITIES IN PRESENT POSITION

	Up to & incl. 10%		11%-20%		21%-30%		31%-40%		41%-50%		51%-60%		61%-70%		71%-80%		81%-100%		No response	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Administration	257	12.4	132	6.4	164	7.9	129	6.2	158	7.6	74	3.6	53	2.6	75	3.6	97	4.7	928	44.9
Supervision	314	15.1	204	9.9	175	8.5	91	4.4	77	3.7	23	1.1	8	0.4	16	0.8	7	0.3	1152	55.9
Teaching and preparation	172	8.3	113	5.5	142	6.9	123	6.0	204	9.9	132	6.4	114	5.5	170	8.2	141	6.8	756	36.6
Research	585	28.3	118	5.7	83	4.0	23	1.1	36	1.7	9	0.4	13	0.6	13	0.6	14	0.7	1173	56.7
Writing and other creative work	651	31.5	124	6.0	38	1.8	10	0.5	9	0.4	3	0.1	0	0.0	4	0.2	2	0.1	1226	59.3
Counseling, advising, individual case work, etc.	693	33.5	205	9.9	117	5.7	33	1.6	41	2.0	20	1.0	23	1.1	22	1.1	39	1.9	874	42.3
Committee work at department, school and university level	924	44.7	119	5.8	46	2.2	4	0.2	5	0.2	1	0.0	0	0.0	0	0.0	0	0.0	968	46.8
Service to community, state, institution, professional organization, etc.	796	38.5	74	3.6	21	1.0	6	0.3	4	0.2	4	0.2	1	0.0	4	0.2	4	0.2	1153	55.8
Other	81	3.9	37	1.7	20	0.9	14	0.6	12	0.6	6	0.3	7	0.3	8	0.3	11	0.5	1871	90.9

TABLE 184 - DISTRIBUTION OF TIME ALLOCATION OF RESPONSIBILITIES: BY AGE GROUPS

	Not involved		1.0%-10%		11%-20%		21%-30%		31%-40%		41%-50%		51%-60%		61%-70%		71%-80%		81%-100%		
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
Administration*																					
Younger	395	52.5	89	11.8	48	6.3	57	7.5	34	4.5	45	5.9	20	2.6	14	1.8	27	3.6	28	3.7	757
Older	377	40.8	125	13.5	57	6.2	79	8.5	69	7.5	78	8.4	30	3.2	26	2.8	34	3.7	50	5.4	925
Supervision																					
Younger	458	60.5	113	14.9	75	9.9	55	7.3	22	2.9	20	2.6			14	1.9					757
Older	503	54.4	139	15.0	91	9.8	78	8.4	45	4.9	44	4.8			25	2.7					925
Teaching*																					
Younger	249	32.9	54	7.1	36	4.8	63	8.3	49	6.5	84	11.1	58	7.7	42	5.5	62	8.2	60	7.9	757
Older	362	39.1	59	8.5	52	5.6	52	5.6	44	4.8	82	8.9	57	6.2	51	5.5	84	9.1	62	6.7	925
Research*																					
Younger	369	48.7	228	30.1	48	6.3	52	6.9	13	1.7	20	2.6	13	1.7			14	1.9			757
Older	582	62.9	248	26.8	42	4.5	20	2.2	6	0.6	11	1.2	8	0.8			8	0.8			925
Writing																					
Younger	424	56.0	249	32.9	55	7.3	17	2.2							12	1.5					757
Older	577	62.4	277	29.9	43	4.6	14	1.5							14	1.4					925
Counseling																					
Younger	312	41.2	260	34.3	68	9.0	39	5.2	12	1.6	16	2.1	9	1.2	10	1.3	10	1.3	21	2.8	757
Older	401	43.4	304	32.9	96	10.4	46	5.0	18	1.9	18	1.9	8	0.9	11	1.2	10	1.1	13	1.4	925
Committee																					
Younger	370	48.9	332	43.9	36	4.8							19	2.4							757
Older	401	43.4	435	47.0	63	6.8							26	2.8							925
Service*																					
Younger	450	59.4	263	34.7	28	3.7							16	2.1							757
Older	475	51.4	398	43.0	33	3.6							19	2.0							925

*Chi-square significant at .01 level

group in general is less likely to have administrative responsibilities, and this appears to be the case across most of the categories to extent of involvement ($p < .01$). The younger group is also more likely to be involved in teaching ($p < .01$), and much more likely to be involved in research ($p < .001$). The older group on the other hand is much more likely to report proportion of time devoted to service ($p < .01$). The degree groups show an even greater degree of independence than do the age groups, and also differ on more of the job dimensions. The Ph.D.'s are significantly less likely to be involved in administration ($p < .01$). The Ed.D.'s, are much more likely to have supervisory responsibilities ($p < .001$), much less likely to be involved in research ($p < .001$), much less likely to be involved in writing ($p < .001$), and somewhat less likely to have service dimension in their position ($p < .05$).

One would expect a number of significant relationships between dimensions of present positions and major fields, and the data bear this out. Chi-squared analysis of major field versus administration shows a very high degree of statistical independence ($p < .001$), and the results recorded in Table 185 do clearly indicate that those most likely to hold administrative positions are those who majored in administration. Of the other fields special education majors, higher education majors, and student personnel majors are also quite likely to have some administrative involvement. Least likely to have an administrative dimension in their present position are elementary education majors, math and science education majors, and educational psychology majors. More major fields again show considerable independence with respect to their supervisory role, ($p < .001$), the independencies in this case is less explainable in terms of a single field than was the case with administration. The results in Table 186 indicate that special education majors, administration majors, curriculum, elementary and secondary

TABLE 185 - DISTRIBUTION OF TIME ALLOCATION OF RESPONSIBILITIES: BY DEGREE GROUPS

	Not involved		1.0%-10%		11%-20%		21%-30%		31%-40%		41%-50%		51%-60%		61%-70%		71%-80%		81%-100%		
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
Administration**																					
Ed.D.	561	41.6	160	11.9	84	6.2	112	8.2	90	6.7	119	8.8	54	4.0	43	3.2	56	4.2	69	5.1	1347
Ph.D.	361	51.1	96	13.6	46	6.5	52	7.4	38	5.4	39	5.5	20	2.8	10	1.4	18	2.5	26	3.7	706
Supervision***																					
Ed.D.	702	52.1	207	15.4	145	10.8	129	9.6	67	5.0	59	4.4			38	2.8					1347
Ph.D.	449	63.6	105	14.9	56	7.9	45	6.4	22	3.1	16	2.3			13	1.9					706
Teaching																					
Ed.D.	517	38.4	108	8.0	69	5.1	90	6.7	77	5.7	120	8.9	80	5.9	69	5.1	121	9.0	96	7.1	1347
Ph.D.	233	33.0	62	8.8	43	6.1	52	7.4	46	6.5	81	11.5	51	7.2	44	6.2	49	6.9	45	6.4	706
Research***																					
Ed.D.	826	61.3	364	27.0	63	4.7	35	2.6	16	1.2	21	1.6			22	1.7					1347
Ph.D.	339	48.0	217	30.7	55	7.8	46	6.5	7	1.0	15	2.1			27	6.0					706
Writing***																					
Ed.D.	833	61.8	421	31.3	57	4.2	20	1.5					16	1.1							1347
Ph.D.	385	54.5	226	32.0	65	9.2	18	2.5					12	1.6							706
Counseling																					
Ed.D.	588	43.7	448	33.3	137	10.2	71	5.3	21	1.6	25	1.9	10	0.7	14	1.0	13	1.0	20	1.5	1307
Ph.D.	281	39.8	237	33.6	67	9.5	46	6.5	12	1.7	16	2.3	10	1.4	9	1.3	9	1.3	19	2.7	706
Committee																					
Ed.D.	626	46.5	613	45.5	76	5.6							32	2.3							1307
Ph.D.	337	42.8	302	42.8	43	6.1							24	3.3							706
Service*																					
Ed.D.	725	53.8	547	40.6	48	3.6	15	1.1					12	0.9							1307
Ph.D.	423	59.9	243	34.4	23	3.3	6	0.8					11	1.4							706

*Chi-square significant at the .05 level
**Chi-square significant at the .01 level
***Chi-square significant at the .001 level

TABLE 185 - DISTRIBUTION OF TIME ALLOCATION TO ADMINISTRATIVE RESPONSIBILITIES: BY MAJOR FIELDS

	Not involved		1%- 30%		31%- 70%		71%- 100%		
	N	%	N	%	N	%	N	%	N
Special education	25	36.2	26	37.6	15	21.6	3	4.3	69
Administration	103	20.5	103	20.5	194	38.7	102	20.4	502
Curriculum	53	50.0	29	27.4	20	18.8	4	3.7	106
Physical education	25	52.1	19	39.6	3	6.3	1	2.1	48
Practical arts	52	49.5	35	33.4	15	14.4	3	2.9	105
Social foundations	30	61.2	16	32.6	3	6.1	0	0.0	49
Subject areas	75	62.5	38	31.7	6	5.0	1	0.8	120
Math and science education	50	65.8	22	28.9	3	3.9	1	1.3	76
Educational psychology	78	65.0	27	22.6	13	10.9	2	1.7	120
Secondary education	56	61.5	18	19.8	12	13.2	5	5.5	91
Elementary education	71	68.9	17	16.5	11	10.6	4	3.9	103
Higher education	17	31.5	12	22.2	12	22.4	13	24.1	54
Guidance	93	50.5	58	31.5	27	14.6	6	3.2	184
Psychology	58	51.8	40	35.7	11	9.9	3	2.7	112
Student personnel	11	32.4	12	35.3	7	20.6	4	11.7	34
Total	797		472		352		152		1773

majors are most likely to have supervisory responsibility, and reflect only small differences in the extent of the involvement. On the other hand, educational psychology majors, higher education majors, and practical arts majors are least likely to have supervisory responsibility in their present positions. Chi-squared analysis major field versus teaching responsibility again produces a very highly significant chi-square ($p < .001$). The results reported in Table 187 indicate that administration majors are least likely to have any teaching responsibility in their present position. In addition, psychology majors and student personnel majors are considerably less likely to have teaching responsibilities. On the other hand, most likely to be involved in teaching are curriculum majors and social foundation majors with only 6.3 percent and 8.3 percent reporting no involvment, respectively. The 30 to 70 percent category represents the modal extent of involvement in teaching for

TABLE 186 - DISTRIBUTION OF TIME ALLOCATION TO SUPERVISORY RESPONSIBILITIES: BY MAJOR FIELDS

	Not involved		1.0%-30%		31%-100%		
	N	%	N	%	N	%	N
Special education	31	44.9	33	47.7	5	7.2	69
Administration	216	43.0	212	42.1	74	14.8	502
Curriculum	45	42.5	37	34.8	24	22.6	106
Physical education	24	50.0	17	35.5	7	14.6	48
Practical arts	74	70.5	25	23.8	6	5.8	105
Social foundations	30	61.2	17	34.7	2	4.0	49
Subject areas	77	64.2	33	27.5	10	8.4	120
Math and science education	48	63.2	20	26.4	8	10.4	76
Educational psychology	94	78.3	21	17.0	5	4.2	120
Secondary education	44	48.4	28	30.8	19	20.9	91
Elementary education	50	48.5	38	36.9	15	14.5	103
Higher education	38	70.4	12	22.3	4	7.5	54
Guidance	117	63.6	60	32.6	7	3.8	184
Psychology	76	67.9	31	27.7	5	4.5	112
Student personnel	17	50.0	15	44.1	2	5.8	34
Total	981		599		193		1773

nine of the fifteen majors. For the remaining six, in no case does the mode exceed 70 percent. Student personnel majors, psychology majors, higher education majors, and administration majors all indicate that their respective modal groups have no teaching responsibilites, although only psychology majors and administration majors have an actual majority in this category. The modal teaching load for elementary education and math and science education majors is in the 10 to 30 percent category. Most likely to have teaching loads in excess of 70 percent of the responsibility are social foundation majors, subject area majors, and physical education majors. Least likely to have more than 70 percent involvement in teaching are student personnel majors, administration majors, and psychology majors.

Chi-squared analysis of the major fields versus the extent of involvement in research in their present position produces a highly significant indication of

TABLE 187 - DISTRIBUTION OF TIME ALLOCATION TO TEACHING RESPONSIBILITIES: BY MAJOR FIELDS

	Not involved		1.0%-30%		31%-70%		71%-100%		
	N	%	N	%	N	%	N	%	N
Special education	17	24.6	19	27.5	13	37.5	7	10.1	56
Administration	330	65.7	81	16.2	58	11.6	33	6.6	502
Curriculum	37	34.9	21	19.8	28	26.4	20	18.8	106
Physical education	3	6.3	6	12.6	30	62.5	9	18.8	48
Practical arts	14	13.3	22	20.9	37	35.5	32	30.5	105
Social foundations	4	8.2	12	24.5	24	49.0	9	18.3	49
Subject areas	15	12.5	16	13.3	46	38.4	43	35.8	120
Math and science education	10	13.2	4	5.2	38	50.0	24	31.5	76
Educational psychology	35	29.2	33	27.5	35	29.2	17	14.1	120
Secondary education	22	24.2	19	20.9	33	36.3	17	18.7	91
Elementary education	18	17.5	17	16.5	41	39.5	27	26.2	103
Higher education	19	35.2	18	33.4	10	18.5	7	13.0	54
Guidance	74	40.2	38	20.6	52	28.2	20	10.9	184
Psychology	58	51.8	30	26.7	18	16.1	6	5.4	112
Student personnel	16	47.1	12	35.3	5	14.7	1	2.9	34
Total	672		348		468		272		1760

independence of the major fields on this dimension ($p < .001$). Most likely to be devoting some of their time to research are educational psychology majors with more than two thirds (68.3 percent) indicating some involvement (see Table 188). Of the remaining field, psychology majors, guidance majors, and student personnel majors are quite likely to report involvement in research in their present position. Least likely to have a research dimension in their present positions are secondary education majors, subject area majors, and practical arts majors. It is, however, rare indeed for a person with a brand new doctorate to be heavily involved in research. In fact, only fourteen people in the entire sample of 2067 indicated involvement of greater than 80 percent. In addition Table 188 indicates that only 8½ percent of the entire sample devote more than one fifth of their time to research. Of those idividuals who are involved to this extent the major proportion

TABLE 188 - DISTRIBUTION OF TIME ALLOCATION TO RESEARCH RESPONSIBILITIES: BY MAJOR FIELDS

	Not involved		1.0%-20%		20%-100%		
	N	%	N	%	N	%	N
Special education	36	52.2	27	39.1	6	8.6	69
Administration	309	61.6	166	33.1	27	5.4	502
Curriculum	67	63.2	32	30.2	7	6.5	106
Physical education	31	64.6	13	27.1	4	8.4	48
Practical arts	71	67.6	25	23.8	9	8.7	105
Social foundations	25	51.0	18	36.8	6	12.3	49
Subject areas	81	67.5	31	25.8	8	6.7	120
Math and science education	45	59.2	26	34.2	5	6.5	76
Educational psychology	38	31.7	54	45.0	28	23.4	120
Secondary education	63	69.2	23	25.3	5	5.5	91
Elementary education	67	65.0	31	30.1	5	4.9	103
Higher education	30	55.6	21	38.9	3	5.6	54
Guidance	85	46.2	88	47.8	11	5.9	184
Psychology	50	44.6	38	33.9	24	21.5	112
Student personnel	16	47.1	15	44.1	3	8.8	34
Total	1014		608		151		1773

of them seem to be educational psychology majors, and psychology majors.

With respect to the time devoted to writing in their present position chi-squared analysis again indicates considerable independence of the major field ($p < .001$). The results for the total sample indicate that less than 9 percent are likely to be involved in writing or other creative work to the extent that it engages more than 10 percent of their time (see Table 189). Least likely to be involved in writing are physical education majors and psychology majors. Most likely to be involved are student personnel majors, and those majoring in the subject areas. Social foundation majors, student personnel majors, and subject area majors are most likely to be spending more than 10 percent of their time in writing, while physical education majors, practical arts majors, and elementary education majors are least likely to be writing. With respect to counseling,

TABLE 189 - DISTRIBUTION OF TIME ALLOCATION TO WRITING RESPONSIBILITIES: BY MAJOR FIELDS

	Not involved		1.0%-10%		10%-100%		
	N	%	N	%	N	%	N
Special education	44	63.8	20	29.0	5	7.2	69
Administration	311	62.0	152	30.3	39	7.8	502
Curriculum	68	64.2	32	30.2	6	5.6	106
Physical education	35	72.9	12	25.0	1	2.1	48
Practical arts	61	58.1	41	39.0	3	2.9	105
Social foundations	27	55.1	15	30.6	7	14.2	49
Subject areas	63	52.5	37	30.8	20	16.6	120
Math and science education	37	48.7	30	39.5	9	11.8	76
Educational psychology	72	60.0	33	27.5	15	12.5	120
Secondary education	50	54.9	31	34.1	10	11.0	91
Elementary education	59	57.3	40	38.8	4	3.9	103
Higher education	33	61.1	18	33.3	3	5.6	54
Guidance	103	56.0	64	34.8	17	9.1	184
Psychology	78	69.6	20	17.9	14	12.5	112
Student personnel	16	47.1	13	38.2	5	14.7	34
Total	1085		558		158		1773

advising, individual case work, etc. Chi-squared analysis shows a very high degree of independence between the major fields ($p < .001$). The data however hold no surprises with guidance majors, psychology majors and student personnel majors most heavily involved in this task category and administration majors and curriculum majors least involved (see Table 190). While a considerable majority of the total sample reports some involvement in committee work at department, school, and university levels, it is again rare to see heavy involvement on the part of these recent graduates. The results in Table 191 suggest that social foundation majors and practical arts majors are most likely to report committee work as a dimension of their present position, while psychology majors, educational psychology majors, and administration majors are least likely to have this kind of responsitility. Finally, time allocated to service, community, state, institutional, professional

TABLE 190 - DISTRIBUTION OF TIME ALLOCATION TO COUNSELING RESPONSIBILITIES: BY MAJOR FIELDS

	Not involved		0%-30%		30%-100%		
	N	%	N	%	N	%	N
Special education	28	40.6	36	52.1	5	7.0	69
Administration	275	54.8	211	42.1	16	3.2	502
Curriculum	60	56.6	44	41.5	2	1.8	106
Physical education	17	35.4	31	64.6	0	0.0	48
Practical arts	41	39.0	63	60.0	1	1.0	105
Social foundations	19	38.8	28	57.1	2	4.0	49
Subject areas	56	46.7	62	51.7	2	1.7	120
Math and science education	31	40.8	45	59.2	0	0.0	76
Educational psychology	44	36.7	57	47.6	19	15.9	120
Secondary education	43	47.3	47	51.7	1	1.1	91
Elementary education	34	33.0	66	64.0	3	3.0	103
Higher education	25	46.3	29	53.7	0	0.0	54
Guidance	40	21.7	85	46.2	59	32.0	184
Psychology	28	25.0	41	36.5	43	38.4	112
Student personnel	6	17.6	19	55.9	9	26.3	34
Total	747		864		162		1773

organizations etc., is most common among special education majors, administration majors, and practical arts majors and least common among psychology majors, higher education majors, secondary education majors, and physical education majors (see Table 192).

While the preceding paragraph represented a fairly accurate description of the present position in terms of division of time, certain significant departures are notable when the respondents are requested to indicate how they would like to divide their time. These results are presented in Table 193. First, in looking at the dimension of presence versus absence of involvement in a particular dimension it is clear that fewer individuals would prefer to devote their time to administrative supervision, counseling, committee work, and service. (See Table 183 for comparison. On the other hand, more would like to be involved in

TABLE 191 - DISTRIBUTION OF TIME ALLOCATION TO COMMITTEE WORK RESPONSIBILITIES: BY MAJOR FIELDS

	Not involved		1%-10%		11%-100%		
	N	%	N	%	N	%	N
Special education	32	46.4	32	46.4	5	7.2	69
Administration	283	56.4	188	37.5	31	6.2	502
Curriculum	42	39.6	53	50.0	11	10.4	106
Physical education	16	33.3	29	60.4	3	6.3	48
Practical arts	26	24.8	58	55.2	21	20.0	105
Social foundations	14	28.6	25	51.0	10	20.4	49
Subject areas	52	43.3	59	49.2	9	7.5	120
Math and science education	32	42.1	39	51.3	5	6.6	76
Educational psychology	66	55.0	45	37.5	9	7.5	120
Secondary education	43	47.3	40	44.0	8	8.8	91
Elementary education	41	39.8	56	54.4	6	6.9	103
Higher education	20	37.0	29	53.7	5	9.3	54
Guidance	87	47.3	83	45.1	14	7.6	184
Psychology	67	59.8	36	32.1	9	8.0	112
Student personnel	13	38.2	16	47.1	5	14.7	34
Total	834		788		151		1773

TABLE 192 - DISTRIBUTION OF TIME ALLOCATION TO SERVICE RESPONSIBILITIES: BY MAJOR FIELD

	Not involved		1%-10%		11%-100%		
	N	%	N	%	N	%	N
Special education	30	43.5	35	50.7	4	5.7	69
Administration	241	48.0	212	42.2	49	9.8	502
Curriculum	57	53.8	46	43.4	3	2.7	106
Physical education	31	64.6	15	31.3	2	4.2	48
Practical arts	51	48.6	49	46.8	5	4.8	105
Social foundations	27	55.1	18	36.7	4	8.2	49
Subject areas	76	63.3	41	34.2	3	1.7	120
Math and science education	46	60.5	29	38.2	1	1.3	76
Educational psychology	83	69.2	31	25.8	6	4.9	120
Secondary education	61	67.0	26	28.6	4	4.4	91
Elementary education	56	54.4	44	42.7	3	2.9	103
Higher education	37	68.5	15	27.8	2	3.7	54
Guidance	109	59.2	68	37.0	7	3.6	184
Psychology	70	62.5	34	30.4	8	7.2	112
Student personnel	20	58.8	12	35.3	2	5.9	34
Total	995		675		103		1773

teaching, research, and writing. The present positions held by the respondents seem to involve a wide variety of responsibilities with perhaps one major responsibility. There seems to be a large number whose major responsibility is teaching, but the remainder of their time is allocated to several varied kinds of responsibilities. The trend in describing the preferred distribution of their time and the position they would desire seems to be in the direction of less time devoted to their major responsibility with the remainder of their time devoted to a fewer number of other responsibilities. While many individuals in the sample would like to be involved in teaching, relative few want to teach more than half time. The remainder of their time would be devoted to research and writing. Relatively few see committee work or service as an important dimension in their job, and of those who are willing to indicate a desire to engage in this kind of activity, very few would devote more than 10 percent of their time to it. In summary, it would seem that the majority of respondents would prefer positions or aspire to positions involving a smaller total number of activities with the time devoted to these fewer activities more equally distributed.

Another dimension of present position about which data was collected had to do with the extent of involvement in preparation of teachers. The results in Table 194 indicate that 26.4 percent are not at all involved in the preparation of teachers, and this is the modal category. Approximately three-eights of the total sample state that they are involved to a large extent or almost entirely. It is highly probable, however, that 26.4 percent not presently involved in preparation of teachers simply reflects a number of individuals now employed in agencies outside colleges and universities and have little or no contact with teachers in training. No differences are apparent with respect to degree groups on this variable (see Table 194), but a very signigicant chi-square does result from an analysis

TABLE 193 - TIME ALLOCATION OF RESPONSIBILITIES IN DESIRED POSITION

	Up to & incl. 10%		11%-20%		21%-30%		31%-40%		41%-50%		51%-60%		61%-70%		71%-80%		81%-100%		No response	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Administration	192	9.3	141	6.8	169	8.2	82	4.0	186	9.0	48	2.3	35	1.7	61	3.0	84	4.1	1069	51.7
Supervision	243	11.8	165	7.9	126	6.1	53	2.6	41	2.0	9	0.4	5	0.2	3	0.1	5	0.2	1417	68.6
Teaching and preparation	180	8.7	188	9.1	320	15.5	182	8.8	393	19.0	98	4.7	52	2.5	83	4.0	23	1.1	548	26.6
Research	456	22.1	332	16.1	313	15.1	89	4.3	101	4.9	14	0.7	4	0.2	9	0.4	6	0.3	743	35.9
Writing and other creative work	596	28.8	306	14.8	197	9.5	37	1.8	34	1.6	2	0.1	1	0.0	1	0.0	0	0.0	893	43.2
Counseling, advising, individual case work, etc.	504	24.4	165	8.0	107	5.2	28	1.4	57	2.8	14	0.7	9	0.4	11	0.5	9	0.4	1163	56.3
Committee work at department, school and university level	609	29.5	49	2.4	29	1.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1380	66.8
Service to community, state, institution, professional organization, etc.	698	33.8	65	3.1	37	1.8	6	0.3	5	0.2	5	0.2	1	0.0	0	0.0	2	0.1	1248	60.4
Other	35	1.7	15	0.7	15	0.7	7	0.3	7	0.3	2	0.1	0	0.0	4	0.2	2	0.1	1980	95.1

TABLE 194 - EXTENT OF INVOLVEMENT IN TEACHER PREPARATION IN PRESENT POSITION: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Not at all	353	26.2	192	27.2	546	26.4
To a limited extent	250	18.6	138	19.5	393	19.0
To some extent	219	16.3	119	16.9	341	16.5
To a large extent	211	15.7	121	17.1	334	16.2
Almost entirely	300	22.3	129	18.3	432	20.9
No response	14	1.0	7	1.0	21	1.0
Total	1347	100.1	706	100.0	2067	100.0

TABLE 195 - EXTENT OF INVOLVEMENT IN TEACHER PREPARATION IN PRESENT POSITION: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Not at all	224	29.6	226	24.4
To a limited extent	136	18.0	185	20.0
To some extent	106	14.0	173	18.7
To a large extent	123	16.2	140	15.1
Almost entirely	162	21.4	190	20.5
No response	6	0.8	11	1.2
Total	757	100.0	925	99.9

by age groups ($p < .05$), and by major fields ($p < .001$). Between the age groups, the younger graduates seem somewhat less likely to be involved as heavily as the older groups in teacher preparation (see Table 195). Among major fields most likely not to be involved are psychology majors with 59.9 percent of this group indicating no involvement (see Table 196). Of the remaining majors less apt to be involved are guidance majors, student personnel majors, and administration majors. On the other hand most likely to be involved are math and science education majors, special education majors, physical education majors, and elementary majors. Of those likely to be almost entirely involved in the preparation of

TABLE 196 - EXTENT OF INVOLVEMENT IN TEACHER PREPARATION IN PRESENT POSITION: BY MAJOR FIELDS

	Not at all		To a limited extent		To some extent		To a large extent		Almost entirely		
	N	%	N	%	N	%	N	%	N	%	N
Special education	9	13.0	9	13.0	11	15.9	17	24.6	23	33.3	69
Administration	173	34.5	125	24.9	89	17.7	48	9.6	65	12.9	502
Curriculum	20	18.9	20	18.9	12	11.3	21	19.8	31	29.2	106
Physical education	5	10.4	4	8.3	8	16.7	18	37.5	12	25.0	48
Practical arts	19	18.1	10	9.5	22	21.0	30	28.6	24	22.9	105
Social foundations	8	16.3	6	12.2	5	10.2	9	18.4	21	42.9	49
Subject areas	16	13.3	21	17.5	16	13.3	38	31.7	24	23.8	120
Math and science education	8	10.5	9	11.8	11	14.5	21	27.6	25	32.9	76
Educational psychology	32	26.7	28	23.3	25	20.8	21	17.5	13	10.8	120
Secondary education	14	15.4	9	9.9	12	13.2	19	20.9	36	39.6	91
Elementary education	14	13.6	9	8.7	8	7.8	13	12.6	58	56.3	103
Higher education	16	29.6	12	22.2	14	25.9	7	13.0	4	7.4	54
Guidance	70	38.0	43	23.4	32	17.4	16	8.7	22	12.0	184
Psychology	57	50.9	23	20.5	16	14.3	10	8.9	6	5.4	112
Student personnel	13	38.2	8	23.5	6	17.6	2	5.9	4	11.8	34

teachers are elementary education majors, social foundation majors, and secondary education majors. Least likely to be involved "almost entirely" in the preparation of teachers are psychology majors, higher education majors, and educational psychology majors.

When these results on present position are compared with the extent to which the respondents would like to be involved in the preparation of teachers, certain changes are very apparent. Only 10.6 percent indicate that they would prefer no involvement, a substantial reduction compared with the 26.4 percent presently not involved. At the same time fewer would describe the positions to which they aspire in terms of almost total involvement of preparation of teachers. In their present position 20.9 percent indicate they are almost entirely involved in the preparation of teachers, and this reduces to 11.8 percent in the description of the desired position. With respect to the desired extent of involvement in

TABLE 197 - EXTENT OF INVOLVEMENT IN TEACHER PREPARATION IN DESIRED POSITION: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Not at all	130	9.7	89	12.6	219	10.6
To a limited extent	186	13.8	126	17.8	313	15.1
To some extent	365	27.1	206	29.2	577	27.9
To a large extent	432	32.1	192	27.2	629	30.4
Almost entirely	186	13.8	56	7.9	243	11.8
No response	48	3.6	37	5.2	86	4.2
Total	1347	100.1	706	99.9	2067	100.0

TABLE 198 - EXTENT OF INVOLVEMENT IN TEACHER PREPARATION IN DESIRED POSITION: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Not at all	103	13.6	88	9.5
To a limited extent	131	17.3	107	11.6
To some extent	213	28.1	252	27.2
To a large extent	209	27.6	309	33.4
Almost entirely	73	9.6	124	13.4
No response	28	3.7	45	4.9
Total	757	99.9	925	100.0

preparation of teachers a significant chi-squared does result across age groups ($p < .01$) and degree groups ($p < .01$). These results are shown in Tables 197 and 198. The direction of difference seems to be one of less involvement or no involvement in preparation of teachers on the part of the younger graduates. The same interpretation can be made of the degree groups ($p < .01$). It should be noted for both of these variables, there is a general movement toward less non-involvement and less total involvement. The noteworthy aspect of this interpretation is that the differences between age groups and degree groups maintain themselves.

Major fields show highly probable independence on desired amount of involvement ($p < .001$). Table 199 summarizes this analysis and contains two features of potential interest. First, when compared with Table 196 which distributes present involvement, the proportion indicating no involvement decreases for all fifteen major areas. Likewise, for the category "almost entirely" involved, there is a consistent decrease for all fifteen majors. Hence, the general trend suggested by the mass data is maintained by each major. Secondly, the most common mode among the various majors is found in the category, "to a large extent," for ten of the fifteen majors. Educational psychology, higher education, and guidance majors in general tend to respond in the category "to some extent, " Student personnel majors tend to prefer "limited" involvement, and psychology majors manifest a bimodal distribution of involvement either preferring involvement to some extent or not at all.

The final dimension of the present position to be dealt with here is the level of student, or division of time over levels, with which the respondent work. The data in Table 200 indicates that 22.5 percent of the total sample work almost entirely with undergraduates, with an additional 19.4 percent working mostly or almost entirely with graduate students. These percentages however are somewhat deflated by the fact that a considerable number of the sample are not employed by a college or university or did not respond to this item. From previous information it is reasonable to assume that practically all of those not responding to this item also fall into the category of not employed by a college or university (see Table 180). When these percentages are adjusted to reflect only those responses of individuals employed in colleges or universities it may be seen that 63.4 percent of the sample work mostly with undergraduates or almost entirely with undergraduates, 21.9 percent of the sample work entirely,

TABLE 199 - EXTENT OF INVOLVEMENT IN TEACHER PREPARATION IN DESIRED POSITION: BY MAJOR FIELDS

	Not at all		To limited extent		To some extent		To a large extent		Almost entirely		
	N	%	N	%	N	%	N	%	N	%	N
Special education	5	7.2	10	14.5	19	27.5	26	37.7	7	10.1	69
Administration	69	12.9	92	18.3	151	30.1	124	24.7	47	9.4	502
Curriculum	3	2.8	5	4.7	21	19.8	52	49.1	20	18.9	106
Physical education	0	0.0	1	2.1	7	14.6	30	62.5	8	16.7	48
Practical arts	8	7.6	11	10.5	28	26.7	40	38.1	17	16.2	105
Social foundations	2	4.1	7	14.3	13	26.5	21	42.9	6	12.2	49
Subject areas	5	4.2	13	10.8	29	24.2	52	43.3	15	12.5	120
Math and science education	6	7.9	4	5.3	14	18.4	38	50.0	11	14.5	76
Educational psychology	10	8.3	23	19.2	44	36.7	33	27.5	3	2.5	120
Secondary education	4	4.4	6	6.4	22	24.2	36	39.6	19	20.9	91
Elementary education	6	5.8	4	3.9	20	19.4	36	35.0	33	32.0	103
Higher education	11	20.4	10	18.5	17	31.5	11	20.4	2	3.7	54
Guidance	32	17.4	38	20.7	56	30.4	34	18.5	14	7.6	184
Psychology	35	31.3	22	19.6	35	31.3	12	10.7	2	1.8	112
Student personnel	5	14.7	11	32.4	9	26.5	6	17.6	3	8.8	34

or almost entirely with graduates, and an additional 10 percent divide their time equally between the two levels. In comparing age groups on this dimension a highly significant chi-squared does result ($p < .001$). A considerable proportion of the chi-squared however is accounted for by the tendency of the younger students to be employed at the college or university level, but there is a trend also in the direction of greater involvement with graduate level students on the part of the younger students, plus somewhat more likelihood of holding a position in a college or university, but working with students directly. A significant difference also appears between the degree groups on this variable, but in this case a much larger proportion of the difference seems to be associated with the greater number of Ed.D.'s employed outside the university setting. There is only a very slight trend toward greater involvement with graduate students on the

TABLE 200 - DIVISION OF PRESENT RESPONSIBILITY ACROSS LEVEL OF STUDENTS: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total		Of those employed at college level
	N	%	N	%	N	%	%
Almost entirely with undergraduates	296	22.0	166	23.5	465	22.5	34.0
Mostly with undergraduates, partly with graduates	260	19.3	138	19.5	402	19.4	29.4
About half the time devoted to each group	90	6.7	45	6.4	136	6.6	10.0
Mostly with graduates, some with undergraduates	64	4.8	47	6.7	111	5.4	8.1
Almost entirely with graduates	90	6.7	97	13.7	189	9.1	13.8
Not employed by college or university	197	14.6	57	8.1	254	12.3	
Employed by college or university, but do not work directly with students	31	2.3	32	4.5	63	3.0	4.6
No response	319	23.7	124	17.6	447	21.6	
Total	1347	100.1	706	100.0	2067	99.9	99.9

part of the Ph.D.'s. Chi-squared analysis of major field versus level of student again results in a high degree of independence ($p < .001$). Again much of this chi-squared is accounted for by differential involvement in certain majors in employment settings outside the colleges and universities. Some interesting trends however are apparent. From Table 202 it may be seen that student personnel majors and social foundation majors are most likely to be entirely involved with undergraduates. Least likely to work entirely with undergraduates are special education majors, psychology majors, administration majors, and curriculum majors. In the combined categories "mostly working with graduate students" and "almost entirely working with graduate students," it may be seen that social foundation majors, educational psychology majors, psychology majors, and guidance majors are most

TABLE 201 - DIVISION OF PRESENT RESPONSIBILITY ACROSS LEVEL OF STUDENTS: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Almost entirely with undergraduates	157	20.7	231	25.0
Mostly with undergraduates, partly with graduates	162	21.4	169	18.3
About half the time devoted to each group	56	7.4	56	6.1
Mostly with graduates, some with undergraduates	48	6.3	30	3.2
Almost entirely with graduates	87	11.5	63	6.8
Not employed by college or university	91	12.0	123	13.3
Employed by college or university, but do not work directly with students	31	4.1	23	2.5
No response	125	16.5	230	24.9
Total	757	99.9	925	100.1

likely to hold positions in which their focus is on the graduate level student. Least likely to be holding positions working mainly or entirely with graduate students are physical education majors, practical arts majors, elementary majors, secondary majors, the subject area majors, and math and science education majors. It seems clear that most likely to work with graduate students are those individuals in areas where training and certification is undertaken at the graduate level. Guidance counselors usually become certified as such after receipt of the bachelor's degree, and these are the individuals with whom those with doctoral degrees in the same areas are most likely to be working. Likewise with social foundation majors and educational psychology majors, where in general only a single course in these two areas may be offered in an undergraduate teacher education professional sequence, and the vast majority of courses in these areas are graduate level.

TABLE 202 - DIVISION OF PRESENT RESPONSIBILITY ACROSS LEVELS OF STUDENTS: BY MAJOR FIELDS

	Almost entirely under-grads		Mostly-under-grads		Half time/ mostly grads*		Entirely grads		Non-college student involvement**		
	N	%	N	%	N	%	N	%	N	%	N
Special education	6	8.7	16	23.2	24	34.8	6	8.7	17	24.6	69
Administration	65	12.9	45	9.0	37	7.4	38	7.6	317	61.1	502
Curriculum	20	18.9	21	19.8	12	11.3	9	8.5	44	41.5	106
Physical education	15	31.3	18	37.5	9	18.8	0	0.0	6	12.5	48
Practical arts	27	25.7	45	42.9	10	9.5	8	7.6	15	14.3	105
Social foundations	20	40.8	9	18.4	7	14.3	7	14.3	6	12.3	49
Subject areas	46	38.3	32	26.7	7	5.8	5	4.2	30	25.0	120
Math/science education	25	32.9	20	26.3	10	13.1	4	5.3	17	22.3	76
Educational psychology	25	20.8	25	20.8	21	17.5	17	14.2	32	26.7	120
Secondary education	28	30.8	22	24.2	11	12.1	2	2.2	28	30.8	91
Elementary education	28	27.2	35	34.0	12	11.6	4	3.9	24	23.4	103
Higher education	20	37.0	11	20.4	7	13.0	5	9.3	11	20.4	54
Guidance	40	21.7	29	15.8	27	14.7	30	16.3	58	31.5	184
Psychology	19	17.0	19	17.0	12	10.8	15	13.4	47	42.0	112
Student personnel	14	41.2	6	17.6	0	0.0	4	11.8	10	28.4	34
Total	398		353		206		154		662		1773

*Categories were combined for the purpose of chi-square analysis.
**This category includes the "no response" category, non-college employment, and college employment not directly involving students.

If these recent recipients of the doctoral degree held the position which they presently desire the group as a whole would distribute their time quite differently between graduates and undergraduates than is presently the case.(see Table 203). While the preceding results (see Table 200) indicate that at present, 34 percent of those teaching at the college and university level work almost entirely with undergraduates, this figure reduces to 7.6 percent when the respondents describe their desired type of position. At the same time the vast majority would prefer to devote some of their time to working with undergraduates. This is indicated by the fact that the proportion of individuals now working almost entirely

TABLE 203 - DESIRE DIVISION OF RESPONSIBILITIES ACROSS LEVELS OF STUDENTS: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total		
							Of those who would teach at the college level
	N	%	N	%	N	%	%
Almost entirely with undergraduates	80	5.9	51	7.2	133	6.4	7.6
Mostly with undergraduates, some with graduates	267	19.8	118	16.7	387	18.7	22.8
About half of the time devoted to each	370	27.5	171	24.2	545	26.4	32.1
Mostly with graduates, some with undergraduates	225	16.7	135	19.1	363	17.6	21.4
Almost entirely with graduates	126	9.4	107	15.2	234	11.3	13.8
Not employed by a college or university	81	6.0	17	2.4	98	4.7	
Employed by college, but do not work directly with students	20	1.5	17	2.4	38	1.8	2.2
No response	177	13.2	90	12.7	269	13.0	
Total	1346	100.0	706	99.9	2067	99.9	99.9

with graduate students remains unchanged when the respondents described their desired position. The generality of the desire to hold a position with a better balance of work between undergraduates and graduate students holds across degree groups and age groups, in that the subgroups in both of these variables move away from total involvement with undergraduates. At the same time, the difference between the degree groups and between the age groups maintains itself with respect to the desired position (see Tables 203 and 204). In other words, younger graduates and those with the Ph.D. degree at present are more likely to be involved with graduate students than the older group or those holding the Ed.D. degrees.

TABLE 204 - DESIRE DIVISION OF RESPONSIBILITIES ACROSS LEVELS OF STUDENTS: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Almost entirely with undergraduates	35	4.6	74	8.0
Mostly with undergraduates, some with graduates	129	17.0	200	21.6
About half of the time devoted to each	225	29.7	228	24.6
Mostly with graduates, some with undergraduates	144	19.0	146	15.8
Almost entirely with graduates	94	12.4	87	9.4
Not employed by a college or university	37	4.9	42	4.5
Employed by college, but do not work with students	12	1.6	14	1.5
No response	81	10.7	134	14.5
Total	757	99.9	925	99.9

However, in describing desired positions the young graduates and those with the Ph.D. would still prefer to be less involved with undergraduate students.

A final question which has bearing on the aspirations of this sample has to do with the extent to which the respondents feel that it is possible to attain the kind of position they desire within the context of their present employing organization. The results are presented in Table 205 and indicate that the model group feels that it is highly possible to gain their aspirations within their present employing organization (32.4 percent). More than a third (37.8 percent) reflect in their responses various degrees of pessimism concerning this possibility. The Ph.D.'s and the Ed.D.'s do not differ in their responses to this item, although the age groups do show a somewhat significant difference ($p < .001$). The results show that the younger group feels more positive toward the possibility of attaining their professional aspirations within their present organization and are somewhat more willing to respond to this item than is the case for the older group (see Table 206). The major fields show a high degree of statistical independence on

TABLE 205 - POSSIBILITY OF ATTAINING DESIRED POSITION WITHIN PRESENT EMPLOYING ORGANIZATION: TOTAL SAMPLE AND BY DEGREES

	Ed.D.		Ph.D.		Total	
	N	%	N	%	N	%
Highly possible	418	31.0	247	35.0	669	32.4
Quite possible	326	24.2	172	24.4	500	24.2
Possible, but unlikely	188	14.0	102	14.4	291	14.1
Quite unlikely	100	7.4	43	6.1	144	7.0
Very unlikely	241	17.9	99	14.0	345	16.7
No response	74	5.5	43	6.1	118	5.7
Total	1347	100.0	706	100.0	2067	100.1

TABLE 206 - POSSIBILITY OF ATTAINING DESIRED POSITION WITHIN PRESENT EMPLOYING ORGANIZATION: BY AGE GROUPS

	Younger		Older	
	N	%	N	%
Highly possible	252	33.3	285	30.8
Quite possible	200	26.4	208	22.5
Possible, but unlikely	110	14.5	128	13.8
Quite unlikely	43	5.7	72	7.8
Very unlikely	120	15.9	169	18.3
No response	32	4.2	63	6.8
Total	757	100.0	925	100.0

this item with a chi-squared analysis producing a result significant at the .001 level. The results in Table 207 indicate that student personnel majors, curriculum majors, and administration majors are the most pessimistic about the likelihood of achieving their goals within their present organization. Hence, the later two named major fields are also the two major fields most likely to be employed in present public school settings, and considerable evidence has been presented indicating a desire to move in their setting. It is quite likely that those responding to these categories are simply reflecting their desire to move into

TABLE 207 - POSSIBILITY OF ATTAINING DESIRED POSITION WITHIN PRESENT EMPLOYING ORGANIZATION: BY MAJOR FIELDS

	Highly possible		Quite possible		Possible but unlikely		Quite unlikely		Very unlikely		
	N	%	N	%	N	%	N	%	N	%	N
Special education	32	46.4	13	18.8	5	7.2	4	5.8	10	14.5	69
Administration	128	25.5	126	25.1	69	13.7	33	6.6	117	23.3	502
Curriculum	29	27.4	23	21.7	12	11.3	11	10.4	23	21.7	106
Physical education	20	41.7	9	18.8	8	16.7	1	2.1	6	12.5	48
Practical arts	35	33.3	34	32.4	19	18.1	2	1.9	12	11.4	105
Social foundations	15	30.6	12	24.5	11	22.4	4	8.2	4	8.2	49
Subject areas	32	26.7	35	29.2	23	19.2	8	6.7	13	10.8	120
Math/science education	29	38.2	20	26.3	7	9.2	5	6.6	9	11.8	76
Educational psychology	51	42.5	32	26.7	10	8.3	6	5.0	17	14.2	120
Secondary education	33	36.3	21	23.1	14	15.4	11	12.1	9	9.9	91
Elementary education	38	36.9	25	24.3	10	9.7	8	7.8	17	16.5	103
Higher education	16	29.6	10	18.5	11	20.4	5	9.3	7	13.0	54
Guidance	55	29.9	39	21.2	33	17.9	16	8.7	28	15.2	184
Psychology	38	33.9	27	24.1	15	13.4	7	6.3	20	17.9	112
Student personnel	14	41.0	4	11.8	4	11.8	3	8.8	9	26.5	34
Total	565		430		251		124		301		1773

college level work. Most optimistic about the likelihood of achieving their professional goals in present organization are educational psychology majors, math and science education majors, practical arts majors, and special education majors.

VI SUMMARY

Background

There is a growing recognition of the crucial role of public education in the future of the country. Along with this recognition there has been a growing concern by the public about those individuals or groups that influence the programs and policies of the schools. There is probably no single group that has more to say about the direction that public education takes than professional educators--especially those having the doctoral degree in education. These are the individuals who operate the teacher training programs, perform research in the areas of teaching and learning, who administer education programs at all levels, and counsel today's youth. The success of the nation's educational system is in no small measure in the hands of these professionals holding doctoral degree.

Any group playing such a crucial role should be subjected to a very close scrutiny. Yet this group of educational leaders has not been the object of extensive research. Relatively little is known about them as a group, and no agency or organization has consistently manifested an interest in such an investigation.

Objectives

The objectives of this study are three in number as follows:

1. To inquire into that group of individuals receiving the doctorate in the field of professional education in the United States during the year 1963-64 relative to the following:
    a. Personal and sociological characteristics of the sample.
    b. Motives for entering the doctoral program in education.
    c. Perception and evaluation of their experiences during the doctoral program.

d. Present position and professional aspirations.

2. To compare the responses of this group of respondents with those of a comparable sample receiving their degree between 1956-58.

3. To compare the responses of certain subgroups within the sample, mainly:

a. Degree (Ed.D. versus Ph.D.)

b. Age (older versus younger doctoral graduates)

c. Length of program (shorter versus longer program)

d. Major field

e. Community background

f. Size of program (large versus small doctoral programs in education)

Procedure

The population to be investigated was defined as all those individuals receiving the doctoral degree (Ed.D. or Ph.D.) in education between September 1, 1963 and August 31, 1964. Research method consisted of survey procedure employing a questionnaire with semi-structured response alternatives designed in part to facilitate coding. The cooperation of the American Association of Colleges for Teacher Education was solicited to aid in identifying and contacting institutions awarding doctoral degrees in education and gaining their cooperation in supplying names and addresses of degree recipients.

Questionnaires were mailed directly to the graduates and follow-ups were sent on three subsequent occasions, one of which included a new questionnaire.

IBM coding was undertaken by a team of undergraduate students under the supervision of the investigator. Tabulation and statistical analyses were done by the Indiana University Data Processing Service. Statistical analyses consisted mainly of chi-squared analysis, plus analysis of variance for the few incidences for which it was appropriate. The results and conclusions follow.

Results and Conslusions

In the original statement of objectives of this study, one primary objective and two secondary objectives were described. The primary objective was to inquire into that group of individuals receiving the doctorate in the field of professional education in the year from Septemeber 1963 to September 1964. Four different foci of this primary objective were defined as being of special interest. These foci were, respectively, the personal and sociological characteristics of the sample, their motives for entering the doctoral program, their perceptions and evaluations of selected experiences during the program, and their present professional aspirations. The secondary objectives of this investigation were (1) to select certain subgroups within the sample for comparative purposes, and (2) to compare the responses of the 1963-64 graduates with a similar group surveyed some six years ago.

The outline of this chapter will follow the three study objectives. That is to say, there is a section on the survey foci, another on the various subgroups within the sample (the independent variables), and a section on the changes since the 1956-58 sample. In addition there will be a short introductory section on production information. Each section within this chapter will include a summary of those findings which seem to have the greatest significance, plus some conclusions and implications.

The reader should be forewarned at this point that it is in this chapter that the biases of this writer will be most in evidence. While undoubtedly certain biases were built into the study in its initial conceptualization, as well as its later implementation, the biases will be much more open and obvious in this chapter. It may be the case that the best person to study these data, select the "significant" findings, and draw conclusions and implications would be a graduate school dean or perhaps a director of the graduate division of education. It is quite possible that a number of individuals in these positions would be able to bring to bear on these data well developed and perfectly defensible evaluative criteria for judging the responses of this sample. This writer's background is in educational psychology, and he is presently employed as such. He has not been, nor is he likely to become, either a graduate dean or director of a graduate program in education. As a result the evaluative criteria implictly or explictly projected in this chapter are likely to reflect a considerable amount of personal subjectivity and professional naivete. While these facts may detract from the authoritativeness of the conclusions. and implications drawn, it is not necessarily harmful to the chapter objectives. In fact it may be an asset. To the extent that the discerning reader challenges statements, he is also probably stimulated to offer alternative interpretations based upon his own study of the data.

Doctoral Production 1963-1964

To the extent that the procedures used in this investigation were successful in identifying those institutions conferring the doctoral degree in education, it would appear that 2488 individuals were awarded the degree during the 1 year interval studied. This figure probably represents somewhere between 15 and 20 percent of all doctoral degrees conferred in all fields during the same 1 year period. During the 2 year interval from September 1956 to September 1958 approximately 3300 people received doctoral degrees in professional education, indicating an annual production rate at the time somewhat greater than 1600 doctorates per year. Hence it would seem that production has increased by approximately 50 percent during the 6 year period between studies. It would seem to be a most gratifying gross rate, except for the fact that there is no evidence whatsoever, from this study or elsewhere, which indicates that the shortage of college teachers of education or doctoral level professional workers is diminishing. In fact, the evidence is quite to the contrary.

In the earlier study it was determined that 92 institutions had granted all degrees to the 3300 graduates in that sample. The present study indicates that 108 institutions, at the very least, have doctoral programs in professional education. This represents a net gain of 16 institutions offering advanced graduate study in the field. It is the case however that of the 92 institutions in the earlier study five institutions have either dropped their program or granted no degrees during the year. Hence, it would seem that 19 new institutions are included on the list. However, evidence was gained by the AACTE during its efforts to identify institutions having doctoral programs that the total number of degree granting institutions may well exceed 121 at this time. The difference is accounted for by institutions with either newly approved programs, or very small programs granting no degrees during the year surveyed. Simply to look at total production figures or the number of institutions involved in that production obscures much relevant information. For example, 1344 of the 2488 doctoral recipients, or 54 percent of the sample, received their degrees from 21 institutions. The 21 institutions with new programs produced exactly 100 graduates during the year studied. The five institutions no longer granting doctorates would have been expected to produce around 25 graduates during the 1 year interval. Hence, the net gain in production attributable to new programs would seem to be approximately 75 graduates, or less than 10 percent of the total production increase of 800 individuals. It is also interesting to note that while the top 21 institutions in this study produced 54 percent of the graduates, the top 21 institutions in the earlier study accounted for approximately 68 percent of the sample. This would indicate a somewhat less heavily skewed distribution in the direction of the smaller programs. While the data very clearly indicate that the increase in the number of graduates can not be attributed to new programs, they also indicate that the increase is not accounted for to an appreciable extent by the institutions with very large programs. Rather, it is the intermediate size programs that seem to have expanded the most and account for the majority of the increase. It seems much more likely that an institution producing 8 to 16 doctorates per year in the earlier study are quite likely to have at least doubled their production during the intervening years. The very large programs on the other hand are considerably more likely to be limiting program size, perhaps because of conscious policy decision, perhaps not. It is interesting to note, however, that there seems to be a very significant difference between private and public institutions in growth rate between the two studies. Eleven of the 16 institutions labeled "underproducers" are private. These findings may have a variety of implications for increasing the production of doctorates in the next 2 years. For instance it is entirely possible that some of the large programs are encountering upper limits in terms of physical facilities, staff, and administrative apparatus which may make expansion extremely difficult. At the same time these are probably the institutions with the greatest prestige in the field and they are certainly most visible to the student. At the same time those institutions which at present have no program may face almost insurmountable problems of attracting competent staff and developing the kind of visibility necessary to attract good candidates for the program. Perhaps then, the intermediate size of program does in fact represent the potential source of production increases in the future. The question of why the privately supported institutions with substantial programs seem not to be participating in production increases should merit immediate attention of the field.

The variety of major fields undertaken by individuals in the sample are most remarkable in their diversity. More than 85 categories were necessary to code the major field listed by the respondent. While a portion of this number and variety can be attributed to the peculiarities of institutional organization and another portion may be due to the idiosyncrasies of the self concepts of these graduates, there remains a huge number of apparent specializations within the field. Renewed effort to define more clearly the meaning of education as an area of study and/or a discipline seems clearly implied, if for no other reason than these highly specialized areas of study tend to become self perpetuating.

Continuing to dominate the doctoral program, at least in number, are the school administrators with about 20 percent of the total sample falling into this group. The next most populous major is guidance and counseling, a distant second with only about 40 percent as many graduates as administration.

Immediately behind the two leaders are a cluster of about seven grossly categorized majors each representing about 5 percent of the total population. These include educational psychology, secondary education, elementary education, curriculum,practical arts, and the teaching of "something." It is interesting to note that most of these major fields represent about the same proportion of the total group of graduates as was the case in the earlier study. In other words production of the various majors seems to be increasing at about the same rate as the total group as a whole. There are, however, some exceptions. For example special education, science education, and guidance produced more graduates during the year than would have been predicted from the earlier study. There is evidence, to be cited later, indicating that these same fields also tend to dominate the NSF and NDEA fellowship programs.

The final data on production related to the two degrees, and the results indicate that of the 2051 providing this information 1345 received the Ed.D. degree. This represents 65.1 percent of the sample, and is remarkable only in that it represents about the same degree distribution as the 1956-58 sample. This suggests that neither side seems to have gained an advantage, or lost, in the inglorious battle of degrees.

Personal and Social Characteristics

In the total sample of 2067 individuals responding there were 1699 men and 372 women, with five not indentifiable by sex. Hence, approximately 82 percent of the sample was male. This figure represents a very slight increase in the predominance of men among doctoral recipients in education since the earlier study where the proportion of men was 79.7 percent.

With respect to origins, all 50 states, a number of the territories, and a variety of foreign nations were named as the place of birth of the individuals in the sample. Restricting consideration to those born in the United States, it is clear, however, that not all states are represented to the extent that would be expected on a basis of population. The results of a procedure devised to define over-and under-producing states clearly indicate consistent underrepresentation from the south and southeast. Overproduction on the other hand seems to be associated with the "great plains" area and west toward the Rocky Mountains and on into the Pacific northwest. The mid-west and east are remarkably predictable on the basis of population.

Viewing the sample in terms of the kinds of communities in which they were reared, as opposed to their native state, it is apparent that large metropolitan areas, small villages, and rural areas are most heavily represented. Much less often do these individuals emerge from suburban areas and the smaller cities and towns.

A look at the family structure of these doctoral recipients during their formative years presents an illuminating picture of educational and professional aspiration. Keeping in mind that the sample of indivuduals studied have all reached the highest educational level, and are all occupied at the professional level, the contrast with the past generation is obvious. Forty-one percent of the fathers of the respondents terminated their education in elementary school, 68.9 percent terminated their education with high school, and only 15.9 percent held degrees at any level. While by definition 100 percent of the respondents hold doctoral degrees, it is noteworthy that only 3.4 percent of their fathers hold this degree. Contrasting educational level with occupational level, it is interesting to note that while less than 16 percent hold college degrees 39.8 percent were occupied at the professional or managerial level. This suggests occupational success of the fathers which is not commensurate with, but exceeds, educational level. The fact that less than 5 percent of the fathers were associated with education either as teacher or non-teacher, clearly indicates that the indivuduals in the sample have moved in a career direction with little family precedent. Mothers of the respondents presented a somewhat similar picture, educationally, although they were less likely to have terminated their education in elementary school. Thirty-three point eight percent did not terminate at the elementary level, while 71.1 percent were high school graduates. Only 10.9 percent of the mothers had been granted degrees at any level. Only 22.8 percent of the mothers were listed as having an occupation of any sort, but nearly twice as many mothers were employed in the educational setting as fathers (8.9 percent to 4.5 percent, respectively).

Approximately 90 percent of the individuals in the sample were graduated from public high schools, and of the remainder three-fourths came from parochial schools. The rural and village origins of the sample are again indicated by the fact that nearly half came from high school graduating classes of less than 100 persons. When the undergraduate institutions are classified by type according to the 1957 edition of the USOE Directory of Higher Education, it appears that the modal institutional type is the large and complex institution with three or more professional schools. The next largest group, comprising 28.8 percent of the respondents, attended smaller institutions emphasizing liberal arts, general, and teacher preparation. It should be noted here, however, that most of these individuals received their bachelor's degrees considerably before 1957. Therefore it is quite probable that at the time of graduation many of their undergraduate institutions were in lower classifications. Classified another way, 53.1 percent of the sample received their degrees from state institutions, 17.6 percent from private institutions, and 20.6 percent from church affiliated schools. As undergraduates the largest single group majored in education, but it is interesting to note that this group comprises only about 33.8 percent of the sample. The next most common undergraduate major was social science, followed by humanities, 25.0 percent and 20 percent respectively. Undergraduate science majors seem to have been a poor source for doctoral majors in education with only 9.1 percent of the total sample having this undergraduate background.

Upon completing the bachelor's degree the individuals in the sample tended to move into master's programs. In fact, only approximately 6 percent indicated that no master's degree was taken. With respect to institution there was a definite movement into the large complex institutions with three or more professional schools with more than two-thirds of the sample receiving master's degrees from this kind of institution. At the same time there was a strong movement away from the church-related institutions into the private institutions, while the state universities granted about the same proportion of master's degrees as bachelor's degrees to the sample (slightly over 50 percent). In fact, while 20.6 percent of the sample received their bachelor's degrees from church-related institutions, only 7.6 percent received their master's from this kind of school. Private schools on the other hand, having granted about 17.6 percent of the bachelor's degrees to the sample, granted about 28 percent of the master's degrees.

While the preceding statements may indicate a continuous career in school through the master's program, this is probably not the case. It is much more likely that the master's degree was undertaken on a part-time or summer basis after the bachelor's program in conjunction with a teaching position. Evidence for this lies in the fact that 1949 was the modal year for receipt of the bachelor's degree while 1957 and 1958 are the modal years for receiving the master's degree. Hence, a seven to eight year interval appears to be the most common between the receipt of the two degrees. Interestingly enough the time interval between receipt of the bachelor's and master's degree is somewhat greater than the time interval between receipt of the master's and the doctoral degree.

Immediately prior to entry into the doctoral program more than 80 percent of the respondents were employed in the educational setting, and of those so employed 40 percent held non-teaching positions. In addition, of the 60 percent employed in the educational setting as teachers, more than half were teaching at the college level. These findings indicate a career pattern correlating quite well with commonly believed success criteria in education. That is to say, many professionals believe that most common rewards for successful classroom teaching consist either of promotion to higher level teaching (e.g., college) or promotion into non-teaching positions. The data further suggest that perceived success may be a common prerequisite to entry into the doctoral program. In other words, in view of the "successful" career patterns of these individuals it would seem reasonable to infer that their entry into a doctoral progam was aimed toward seeking even greater success, rather than seeking a way to overcome lack of success.

It is probably the case that for those individuals receiving their doctorate within the field of education the program was much more of a family undertaking than is probably the case for most other fields. In fact 80.2 percent of the sample was married, and of those married nearly 90 percent had children, 28.5 percent of the families had two children, and an additional 24.4 percent had three. In general the wives or husbands of those individuals in the sample had good educational backgrounds. Only 1.8 percent were not high school graduates, while 72 percent held degrees at one or more levels. Only 3.8 percent, however, had the doctorate. Further indication of the familial nature of doctoral work in education is shown by the fact of those spouses with degrees 43 percent of those degrees were held in the field of education. Finally the results indicate that more than half of the spouses were gainfully employed during the doctoral program, with more than half of those employed working either as teachers or educational specialists.

By the time that the individuals of the sample had finished the doctoral program the average graduate, if this is a meaningful term, was nearly 39 years old. To be more precise, the mean age of the group at the time of their response to the questionnaire was 38.9 years with a standard deviation of 6.96 years. Hence, it would appear that two thirds of the sample was between the approximate limits of 32 and 46 years of age. The distribution is positively skewed, that is, in the direction of the greater ages. While the number of degree recipients over 50 does not constitute a large proportion of the total sample (6.7 percent), it is somewhat disheartening to note that this figure does exceed slightly the proportion of the sample under 30 (5.6 percent).

The picture which has emerged from the data of those individuals receiving their doctorate in education seems to be one of an individual from a middle to lower-middle class beckground with considerable but far from excessive success aspirations. While he has attained a very high educational and professional level, the process has been slow and noncontinuous. It is as if success at one level has led to an increment in aspiration level, which when attained, led to another small increment in aspiration, and so forth until present educational and professional levels were attained. This rate of progress was slowed even more by the accumulated responsibilities of family life. The end result is a large group of individuals whose post-doctoral careers will only slightly exceed in length their predoctoral professional careers. Perhaps, the adoption of rules stated in terms of maximum age limits for entry into doctoral programs may be implied by these data. However, such a move would obviously not solve the problem. Beside being arbitrary and discriminatory, it certainly would not increase productivity of doctoral programs and have little effect on overall quality of graduates. Greater effort to recruit younger persons into the program sooner in their careers is strongly suggested. Such recruitment would extend at least to the undergraduate schools, and go well beyond the confines of schools of education into other departments of the universities. It is far from self evident that the extensive experience, though successful, typical of the present group of doctorates in education, will contribute to the future success of these recent graduates. The 39 year old administrator with 15 years of successful experience in school administration may be a good risk in a doctoral program and may make a considerable contributuion to the field upon receipt of his degree, but he may also have been a good risk 15 years earlier. While it is easy to protest and recognize the injustice of rules on upper age limits, it is apparently less easy to recognize that rules stated in terms of minimum experience may well be equally arbitrary.

The data also seems to imply the need for efforts to recruit in other underrepresented areas of the population. For example, the ability difference between male and female undergraduate majors has long been recognized along with the predominance in number of women in public school education. Yet in spite of this, less than one fifth of the present sample is female, and this represents a slight decline from the earlier study. Certain geographic regions, certain social classes, and certain kinds of communities seem underrepresented in the sample. Explanation of certain of these facts probably lies in the image of profession itself, something which cannot be changed overnight.

Motivational Patterns

The fact that nearly all the individuals in the sample have exceeded the educational and professional level of their fathers and the fact that they obtained doctors degrees under conditions of considerable professional and personal responsibility suggest strong motivation. This section reports on the setting from which they became interested in doctoral study, the persons who influenced them, the kinds of goals they were seeking, and the factors that made it possible to begin doctoral study.

First, only 5.4 percent of the sample indicated that they became interested in doctoral study during high school, and 12 percent during their undergraduate program. This latter figure would seem to be a particularly devastating testimonial to the effectiveness of undergraduate programs in arousing a high level of professional interest. The most common occasion, and setting, for the initation of interest in doctoral study was during the master's program (28.3 percent). The next largest group, 18.9 percent, became interested after the master's degree while teaching, followed by a sizeable group, 13.8 percent, who became interested during post-master's graduate study. Unsurprisingly the school setting, as opposed to the work setting, seems to be more effective in arousing interest in pursuing the doctorate. The area of specialization which was to become the doctoral major in general was decided upon before the decision to pursue the doctoral degree.

It had been hypothesized that the decision to undertake doctoral study was probably based upon a complex of approach-avoidance motives, and that many individuals were not so much attracted to positive features of doctoral study as they were trying to avoid or escape certain undesirable features of their pre-doctoral position. The results indicate that this is clearly not the case, but it was more the "sweet smell of success" than the avoidance of failure that led them into the program. This is a reasonable finding in view of earlier statements to the effect that it was success in their pre-doctoral positions and institutions that led them to consider the doctoral degree in the first place.

For the most part the decision to enter doctoral study was not made alone. In fact the average respondent indicated that at least two categories of persons had some influence on his decision to enter the program. Most commonly checked by more than 50 percent of the sample was the category of "professional colleague." Next most important were "professors" and "former professors," followed by the spouse.

Assuming the presence of both desire and encouraging individuals, it was felt that the availability of certain financial assistance may well have influenced the actual decision to enter a program. That this is the case is borne out by the fact that nearly every individual in the sample checked at least one factor as influential in their decision to enter a doctoral program. Most common among these was the offer of an assistantship, so indicated by 30 percent of the sample. Next most common was personal savings, followed by institutional fellowships, and leave with pay. One hundred twenty six individuals in the sample indicated that they were lured, in part, into the program through the promise of NSF or NDEA fellowships. This last item is noteworthy in that it represents a source of financial assistance that did not exist at the time of the last study.

A final indication of the strength of the motives of the degree recipients lies in the fact that 60 percent of the sample indicated that entry into the doctoral program had to be postponed at one time or another for a variety of reasons, the most common of which was lack of adequate finances. The fact that these 1200 individuals eventually received their degree is a strong indication that their motives were powerful indeed.

Program Evaluations

The first consideration under this section were the factors considered in the choice of doctoral institutions. Respondents were asked to check all of those factors considered in choosing their institution, and also to indicate the one factor most considered. The results show that among factors considered "reputation of the university" ranked highest, followed by "availability of a particular kind of program sought," with 44.2 percent and 37.2 percent, respectively, so indicating. Among those factors most considered, however, "availability of program" was chosen twice as often as "reputation of the university," and second in rank among "most considered" factors was "proximinity of the university." Three reputation factors, those of individual staff members, of the university, and of the department were ranked by respondents in the order given. Availability of assistantships, fellowships, etc. was a consideration for only 31.3 percent, and only 9.6 percent indicated that this was the most considered factor. These results seem to suggest that if there is a university close at hand with the kind of program desired, these two considerations may be sufficient in some cases for selectingthe institution. It also seems to be suggested that these factors might outweigh reputation factors, as well as opportunity for financial aid. While undoubtedly the factors of program reputation, proximinity, etc., tend to interact, if one makes a straight forward interpretation of these data, it would seem to imply that moves in program development might lead to more payoff in terms of increased production than attention devoted to reducing financial hardships and improving the image of the university. This could be especially true for institutions located in heavily populated areas.

The median length of program for this group is almost exactly four years, although the distribution is heavily skewed in the direction of longer programs. The fact that half the programs were completed in a space of four years, however, represents one of the more heartening findings of this study in that six years ago median program length was considerably in excess of five years. Something has occurred, perhaps tighter institutional regulations, during the intervening years to account for this substantial reduction. There still remains, however, a significant number of extremely long programs. In fact it is likely that as many as a third of the sample required from six to ten years to complete their program. The results merely indicate that there has been a significant increase in the number of shorter programs.

If a typical program was four years in length, the results indicate that, typically, three years of this were devoted to course work with about two thirds of the total sample completing their course work by the end of four years. If a doctoral program is considered as having two phases--that devoted to course work and that to writing the dissertation--it is interesting to note that the thesis seems to have taken nearly as much time as the course work, if not more. Only 3 percent of the total sample report that less than 30 months was spent on the dissertation. An additional 45.6 percent spent 30 to 39 months, while 29.5 percent spent 40 to 49 months. It is not difficult to see danger signs in the amount of time spent on the dissertation. Clearly these figures reflect, in part, the number of individuals of the sample who elected to complete their dissertation after taking a position. Production of doctoral degree recipients on one hand, and the demand for college teachers of education and other educational specialists, increases the probability that "ABD's" will increase. This will show up as an even greater span of time devoted to the dissertation.

Less than one in five individuals in this sample carried out his program entirely as a fulltime student, while 25.6 percent undertook their program entirely as part-time students. The remaining 55 percent carried out their program in some combination of full and part-time work. Of those who were part-time students the results indicatethat summer programs were somewhat more common than evening programs as a means of completing their doctoral study. Nineteen percent, however, attended part-time during the day. Only 9.2 percent of the sample indicated that their institutions had no residence requirement. At the same time only 37.6 percent indicated that they fulfilled their residence requirement through full time study during regular academic sessions. Apparently a number of individuals, involving 26.6 percent of this sample, were able to fulfill their residence requirements via summer programs or through some other arrangements. These latter figures seem to be indicative of an increasing flexibility with respect to institutional regulation of residency periods, permitting the old question of the importance of the residence requirement to be raised. It seems to this writer that new variables may be entering the picture. Among the arguments being advanced in recent years favoring less rigorous residence requirements have been those based on a notion that many individuals in doctoral study in education were being trained as educational specialists to work in the field, in the public schools, etc., and had no real need for the kind of experiences provided by residency. However, evidence will be presented subsequently indicating that between 55 and 60 percent of the present sample took college and university positions immediately upon receipt of their degree, and more importantly, to the extent that their aspirations are realized, between 75 and 80 percent will eventually be employed at the college or university level. These expressed desires of recent graduates together with the fact that college and university positions will probably become more available in the future may mean that doctoral programs may become more and more specialized in the production of college teachers of education. If this is the case, then, at the very least new arguments for reduction of residency requirements will need to be advanced, for the old may no longer be relevant.

Ranking the sources of finance during the period of residency, "assistantships or other university positions" represent the most common source with 40.2 percent of the sample so indicating. The next most common comes from personal savings (36 percent), followed by scholarship, fellowship or award

(27.0 percent) and spouses earning (24.7 percent). Rather surprisingly 13.9 percent of the sample made use of the G.I. Bill, although this may simply be a further indication of the length and time encompassed by a large number of programs. One of the more interesting features of the data on financing residency is the fact that there were approximately 4,000 responses to this item. When this fact is considered together with the fact that approximately 10 percent omitted this item because they fulfilled no residence requirement, the results suggest that on the average each individual depended upon a minimum of two sources of finance during this period. Another interesting finding is that while 36 percent of the sample indicated that savings were a source of finance, only 7.8 percent indicated that they were mainly dependent upon savings during this period. This would seem to suggest no real lack of opportunity to gain the wherewithall to fulfill residence requirements. Another piéce of evidence that the residency period did not seem to represent an undue financial hardship is the fact that the second most common form of housing, involving 20 percent of the sample, was a house owned by the student.

At this point in the survey the respondents were asked to give their perception and evaluations of a number of standard aspects of doctoral programs. These program dimensions were posed in the form of rating scales involving a variety of contimua, but usually including the possibility of expressing positive or negative feelings. In general the results showed a distribution of ratings which were highly positive and heavily skewed toward the negative end of the contimua. Although this was uniformly true across all items, there were a number of differences between items, expecially in the incidence of less positive responses. These latter provide the primary basis for the interpretative statements which follow.

Nearly three quarters of the sample felt that the admissions standards of their institution were rather selective to highly selective, while only 3.8 percent saw standards as relatively unselective. Twenty-one percent of the sample perceived the caliber of doctoral students in education at their instituion as being usually or clearly superior to other doctoral students, while only 11.8 percent saw them as inferior.

With respect to their course work only about 6.5 percent of the total group suggested some inappropriateness in their course work, and 73.8 percent perceived a proper balance between work in their major area versus other areas in their program. The division of the remaining responses for the latter item was nearly equal with about 10 percent seeing overemphasis in the major area and 10 percent seeing overemphasis on courses outside the major area.

With respect to the courses themselves, about 60 percent of the sample saw a considerable to a great amount of freedom and self direction permitted in their classes, but this 60 percent figure does suggest a greater incidence of dissatisfaction on this particular program dimension than on most. Also in their course work 60 percent indicated that they had encountered superior instruction in half or less of their courses. This again suggests a much greater incidence of dissatisfaction. It is interesting to note, however, that of the superior instruction encountered 80 percent maintained that more than half of it was encountered in their major area. This is an interesting finding, especially in view of the fact that in most doctoral programs there are relatively few courses with enrollment restricted to majors. Hence, the results seem to suggest that, given a class, those class members who are majors in the area in which the courses falls will see instruction as superior, while those who are not majors will not see the instruction as superior.

With respect to the tool requirements, language and statistics, there is little question that statistics is seen as the more valuable tool subject. For the evaluation of the language requirement, two questions were posed, one for those fulfilling language requirements, and one for those not fulfilling the requirements. Sixty-seven point nine percent of those fulfilling language requirements indicated that the requirement had little or no value. Of those not fulfilling language requirements 63.6 percent indicated that they were of no value. The slight difference between the groups is not statistically significant, but the trend is in an interesting direction. With respect to the statistic requirement 63.4 percent indicated that this requirement was either extremely valuable or of considerable value. Only 5.4 percent suggested that the requirement had little or no value. The fact that only 10.8 percent suggested that the item was inapplicable can be considered evidence of the prevalence of the statistics requirement in doctoral programs in education.

Two pairs of questions were posed concerning the amount of interaction between the students and faculty, and the value of such interaction. The results indicate that about 36 percent of the sample felt that student-student interaction was encouraged to a considerable or great extent. Almost precisely the same proportion saw faculty-student interaction encouraged to a considerable or great extent. When asked to rate the value of such interaction on the same five point scale, nearly 60 percent gave considerable or great value to student-student interaction and 63 percent made use the same categories in rating the value of student-faculty interaction. These results strongly suggest that the respondents see these kinds of interaction as important dimensions of their program, and probably would like a great deal more interaction than they get.

Of those individuals who apparently held an assistantship or other staff appointment during their program nearly 80 percent perceived their position as one involving responsibilities related to their program objectives, and more than 82 percent indicated that their appointment was of considerable value or extremely valuable, educationally.

Somewhat less than half the total sample felt that the amount of research going on at their institution and in their field of interest was "considerable" or "great". More than 25 percent suggested that the amount of research in their field was limited to nonexistent. While the perceived amount of research going on in their field does not represent an impressive figure, the extent to which the respondents were able to participate in it is even less impressive. Only 38 percent of the sample suggested that there was a considerable to great opportunity for them to participate in this research. Twenty-six percent rated the extent of opportunity as small to nonexistent. In response to their perception of the relative emphasis on production of indivuduals in research as opposed to production of college teachers results indicate that 56.6 percent was a proper balance. Twenty-one percent saw some to great overemphasis on research, but only 14.8 percent saw overemphasis on teaching.

When the respondents were posed with the assertion that the doctoral dissertation at their university was more of a laborious exercise than a real intellectual experience, nearly a quarter of the sample agreed to some extent. On the other hand nearly two thirds tended either to disagree or disagree strongly. Relatively few (9.2 percent) tended to equivocate on this item, producing a somewhat bi-modal distribution. Nearly 86 percent saw a considerable to a great amount of freedom and self direction permitted in the development of the dissertation problem. It is possible however, that too much freedom was perceived by some in that a substantial number, slightly more than a third of the sample, questioned the adequacy of advice and guidance of the thesis director. The remaining two thirds, though, were highly satisified with the adequacy of advice and guidance of the thesis director. Certainly the respondents agreed that the thesis director was much more helpful in general than the rest of the doctoral committee, where the responses were distributed almost rectangularly over the five categories of helpfulness of the doctoral committee other than the thesis director. About five out of eight respondents reported their department and or surrounding schools to be cooperative in providing data and opportunity for experimentation. An incidental finding on this particular item was that about 16.4 percent marked the item as inapplicable. This figure could well represent the proportion of dissertations which involved no empirical dimensions. Approximately 64 percent of the sample reported satisfaction with the adequacy of the university library for their dissertation problem and only 11.2 percent reported unsatisfactory facilities for compiling, tabulating and computing their data.

As suggested earlier the respondent"s evaluations of all aspects of their program suggested highly positive feelings toward their program, their institutions, and themselves. Further data in support of this interpretation was supplied by their responses to the question: "If you were starting your graduate work in education and had your choice of any graduate school in the United States, how likely would you be to choose the same institution again?" The results for this item showed that 45.4 percent of the sample indicated that they would be extremely likely (the most positive choice) to choose the same institution again. An additional 21.08 percent stated that they would highly likely do so. Only 11.0 percent suggested that they would be very unlikely to make the same choice.

At this point the respondents were presented nine aspects of doctoral programs and requested to indicate those which they felt contributed most to their professional development, and then select the one which they would consider most important. When considering total responses, that is, considering "contributing aspects" and "most important aspects" together, course work ranked first (70.7 percent response), followed by dissertation work (69.2 percent), followed by interaction with major professor (65.4 percent), and independent reading (61.2 percent). When "contributing aspects", but not "most important" are ranked the results were as follows: course work, dissertation work, independent reading, interaction with other students, interaction with faculty, and interaction with major professor in that order. When the single most important aspect of program was tabulated, however, interaction with major professor was far and away the first choice with 23.0 percent responding in this category. Next came dissertation work checked by 18.1 percent, followed by independent reading and course work both of which were responded to by 9.5 percent of the sample. Assistantships were considered the most important aspect by 6.5 percent of the sample. However, since only about 40 percent of the total sample held an assistantship this experience could well rank second or third if the proportions were based on number holding assistantships. If this were the case then course work, which constitutes the most time consuming program dimension would either rank fourth or fifth in its perceived contribution to professional development.

A total of 27.7 percent of the sample indicated that at one time or another it had been necessary to discontinue temporarily their program. While the vast majority (72.3 percent) indicated that such periods did not occur, this finding should be considered in light of other factors. To discontinue a program is a choice which has meaning primarily to the full-time student. A large proportion of the total sample undertook their program on a part-time basis. It is doubtful that a part-time student, who had decided to postpone his residency for a semester or year would check this as a critical period. Hence, it is possible that the 27.7 percent figure represents an underestimate with respect to the total incidence of this kind of event. As a follow-up question to the preceding one, the following was posed: "During the doctoral program did any critical period occur which nearly resulted in your discontinuance and/or required emergency measures to prevent interruption?" The results indicate that 25.4 percent did experience a near-critical period. Hence, it would seem that nearly half of the total sample experienced one or the other kind of critical period during their doctoral program. The most commonly cited causes of critical periods are work pressures, followed by financial problems, and family problems.

A final question in this section asked the respondents to name the individuals who provided the main sources of encouragement to them during their program. The results show clearly that two individuals far overshadow all others, and these are, predictably, the major professor and the spouse. More than half the sample specifically named one or the other of these two individuals, with the spouse named only slightly more often than the major professor.

To what extent can one place credence in perceptions and evaluation by recent doctoral graduates of themselves and their program? This of course cannot be answered here, but to the extent that one can put faith in a perception of these respondents, certain things seem implied. Clearly a doctoral program is not defined the same way by recent doctoral graduates as it is defined by an institution in the graduate school bulletin. A doctoral program does not seem to be a series of courses, required and elected, followed by examinations, followed by dissertation. Rather these candidates see their program as a highly personal kind of thing defined more in terms of a dialogue between themselves and, usually, the major professor mediated by their common interest, presumably the subject matter of the program. Course work, independent study, and dissertation may well be simply settings in which dialogues take place.

Present Position and Aspirations

One aspect of this study which is probably of special interest to the profession, especially to those individuals responsible for filling staff vacancies at the lower levels of rank, is the proportion of new degree holders that are actually available on the job market. Evidence from this study suggests that of the 2488 graduates approximately 40.3 percent held the same position the year following the receipt of the degree as the position held prior to receipt of the degree. This group would include both those individuals who accept a position before the degree was completed and write the dissertation on the job, and those individuals who held a position in the present institution and took leave to complete their degree with an option to return. An additional 11.6 percent returned to the same institution or organization, but either took a different position or received a promotion in rank upon receipt of the degree. Summing these figures, approximately 52 percent returned to the same institution or organization, and did not become available on the job market upon receipt of their degree. An additional 26.7 percent had held full time staff appointments in some institution prior to the receipt of the degree, but during their doctoral program.

This group did upon receipt of their degree accept positions in different institutions. Only 19.3 percent apparently went throught their program, held no full time position during the program, and went directly from school to a job. Hence, it is possible that a small minority of any one year's production of doctoral graduates may be available on the job market from the institution that is granting the degree.

Approximately 56 percent of the total sample are presently employed in a college or university. Thirty percent hold the rank of assistant professor, 12.5 percent associate professor, and the remainder are either deans, full professors, or holding some kind of position in administrative hierarchy of the institution. Approximately 37 percent of the sample indicate that they are not employed by a college or university.

Geographically these recent graduates distribute themselves widely throughout the country, and in fact throughout the world. Maine and Alaska are the only states that did not attract one or more of the individuals from this particular sample. While there seems to be little evidence of pronounced migrations toward particular sections of the country, it is interesting to note that 27 percent of the total sample are employed in the three states, New York, Californis, and Illinois.

The nearly 2500 doctoral graduates in education were produced by 108 institutions. That is to say, all doctoral graduates in education are produced by approximately 5 percent of the institutions of higher education. It is interesting to note that 25.5 percent of the respondents are presently employed by the same 108 institutions. When this proportion is adjusted to account for the 37.5 percent not employed by a college or university, it becomes possible to say that, of those doctoral recipients now employed in the college and university setting, 41.6 percent are employed by institutions which grant the doctoral degree in education. The total number employed by the same institution which conferred the degree is revealed by these data.

The expected income of the respondents for the 1964-65 calendar year beginning in September 1964 ranges from less than $3,000 to more than $20,000. The median is slightly over $10,000, and the mode is clearly located in the interval from $10,000 to $12,500. These expected incomes are not just base salary, but include income from other professional activities. Only income from investments and other extraneous sources are excluded, hence, these figures may appear to be somewhat inflated. However, considering institutional variation in definition of base salary this approach seems to be defensible. Respondents were also asked the extent to which their income had been increased as a result of having received the doctorate. The results indicate that the modal response is a zero increment in yearly income. However, the modal category only includes 27.1 percent of the sample. The median increment would appear to be slightly over $1,000. Twenty percent of the group report increments in excess of $3,000. It is quite likely, however, that a substantial proportion of this group are reporting gains in their present position relative to the part-time staff appointments held during the doctoral program.

Organizationally, it appears that the largest employer of the recent graduates is from the large universities accounting for about 29.4 percent of the sample. Public schools and small colleges account for slightly more than half the total sample with these two kinds of organizations about equally represented. In all, about 54.5 percent of the sample are employed in the higher education setting. Slightly more than 5 percent are employed by state or federal government agencies, 3.0 percent are employed by nonprofit organizations or foundations. It is interesting to note that when the same category of responses is presented to the respondents under the question, "Under what kind of organization would you like to be employed?", the distributions are as follows: Forty point three percent of the sample would like to be employed by a large university and 27.3 percent by the small colleges. The 25 percent now employed in the public schools would be reduced to 10 percent if the wishes of the respondents were fulfilled. The fact that 10 percent of the sample failed to respond to this item suggest that the actual percentages in some categories may be somewhat deflated. It seems clear, however, that the large university is perceived as an attractive setting to many respondents. It is equally clear that the public schools are not perceived as a setting within which to attain their aspirations. The fact that 5.3 percent of the sample now employed by state and federal agencies reduces to 1.9 percent as a desired locus in employemnt may suggest that these organizational settings are perceived as dead-ends. The general trend seems to be as follows: If an individual is presently employed in a small college, he probably aspires to a position in a large university. If he is presently employed in the public schools he may wish either to go to a small college or to a large university, but more likely to a small college. Although this seems to be the general trend, the particular way that the data were analyzed for this question obscures information about reverse trends. That is to say, it is not known how many from large universities are desirous of returning to public schools or small colleges. It should also be noted that the desire to move is not equivalent to the decision to move. For example, in the case of school administrators the higher education setting may seem attractive but such considerations as lower salary and loss of autonomy could keep them where they are.

The present position of the respondents seems to be characterized mainly by the variety of responsibilities involved. Approximately two thirds of the sample indicate that they have some teaching responsibilities. Fifty-seven percent of the sample indicate that their present positions include some kind of counseling and advising, etc. Approximately 55 percent indicate that they have some administrative responsibility, and 44.1 percent indicate some supervision responsibility. Fifty-seven and seven-tenths percent stated that they are involved in some sort of committee work and 44.2 percent state that some kind of service function is involved in their present position. Research activities involved only about 43.3 percent of the sample. When the respondents were requested to indicate how they would like to divide their time in the position to which they aspire, the most general trend is in the direction of a better balance among fewer responsibilities. More individuals in the sample would like to be teaching than are presently doing so, but relatively few would like to teach more than half time. The remainder of time would probably be devoted to research and writing. Relatively few see committee work or services as an important dimension of their job, and of those who are willing to indicate a desire to engage in this kind of activity very few would devote more than 10 percent of their time to it. At present only 26.4 percent of the sample are not at all involved in the preparation of teachers. Approximately three- eights of the sample indicate thay they are involved "to a large extent" or "almost entirely." It seems likely that a large share of the number not now involved in teacher preparation are simply those not employed in the college or university setting. When involvement in teacher education in their present position is compared with the extent to which the respondents would like to be involved, only 10.6 percent indicate that they prefer no involvement. At the same time considerably fewer than is presently the case would like to be totally involved in the preparation of teachers. Further data on present position indicate that 22.5 percent of the total sample work "almost entirely" with undergraduates, while an additional 19.4 percent work "mostly" with undergraduates. Only 14.5 percent of the sample work "mostly" or "entirely" with graduate students. These figures have not been adjusted for or taken into account those not employed by a college or university. When such adjustment is made it appears that 63.4 percent of the sample work mostly with undergraduates or almost entirely with undergraduates and 21.9 percent of the sample work entirely or almost entirely with graduates. The results for the position to which the respondents aspire again indicte a trend in the direction of better balance. Relatively few (7.6 percent) indicate that they prefer to work almost entirely with undergraduates, and at the same time relatively few (13.8 percent) would prefer to work almost entirely with graduate students. A final question, which has bearing on the aspirations of the sample, request the respondents' feelings about the possibility of attaining the kind of position they desire within their present employing organization. The results indicate that 32.4 percent feel that their present employing organizations do offer such potential. Fourteen point one percent indicate that it is possible but unlikely, 7.0 percent indicate that it is quite unlikely and 16.7 percent suggest that it is very unlikely.

The Independent Variables

The so called independent variables are six in number and simply refer to the six ways the data were split in order to compare the responses of certain subgroups within the sample. The six variables selected were: (a) degree (Ed.D. versus Ph.D.), (b) age (the older 40 percent versus the younger 40 percent), (c) major field (15 gross categories), (d) community origin (rural-village versus small town versus small city versus large city), (e) length of program (longer 40 percent of programs versus shorter 40 percent), and (f) major versus minor producing institutions (the 21 largest producing institutions accounting for half the total production versus all other institutions). Of the six variables studied the results suggest that three are very powerful indeed, degree, age, and major field. The term "powerful" is to be interpreted to mean that the degree groups, for example, were shown by chi-squared analysis to be independent with respect to a very large proportion of the questionnaire items. Community origin seemed to be a significant variable only with respect to certain sections of the questionnaire, while length of program and major versus minor producing institutions proved to be relatively weak variables.

The "independent variables" are not independent of each other. In fact some interact quite strongly with others. For example, degree interacts with major field, age, community background, size of program, but not length of program. More specifically the Ph.D.'s are younger, more likley to come from the large cities, and are more likely to have received their degree from major producing institutions. In addition they are more likely to have majored in psychology, educational psychology, or social foundations and much less likely to have majored in secondary education or administration. The "younger" group are most likely to have majored in student personnel, psychology or educational psychology and least likely to have majored in higher education, secondary education, administration or special education.' It has already been noted that the younger individuals are more likely to take the Ph.D., and are much more likely to have been reared in small cities than rural or village areas. Large cities and small towns contribute about as expected to the different age groups. Age is very significantly related to length of program with the younger individuals much more likely to have short programs, but about equally likely as the older individuals to have attended major producing institutions.

It has been seen that major field as a variable is related both to age and degree. In addition, major field also seems to be related to community origin, with most of the relationship accounted for by the two categories of rural-village and large cities. The results suggest that administration, practical arts, secondary education majors are much more likely to come from rural or village communities than psychology majors, educational psychology or student personnel majors. The converse statement can be made for large cities. Major field also seems to be related to size of program with minor producing institutions much more likely to grant doctorates in guidance and social foundations and less likely to offer programs in physical education, practical arts, or the subject areas. Rather surprisingly, there appears to be little relationship between major field and length of program.

Community origin has been shown to be related to the degree, age, major field, but not particularly related to either length of program or size of program. Finally, major versus minor producing institutions seem to be somewhat associated with degree and major but unrelated to community background, length of program, or age.

Ph.D. versus Ed.D.

It has already been shown that Ph.D.'s tend to concentrate in certain major areas, they are younger, they tend to come from small cities and suburbs, they attend major producing institutions. In addition, however, the two degree groups display a significant degree of independence on the responses to many other items in the questionnaire. The Ph.D.'s were somewhat less likely to be married, but differed from the Ed.D. with respect to no other personal variable upon which the date were collected. In other words the groups show no significant differences on such item as parent's occupation or education, the kind of undergraduate institution attended, undergraduate major, or position held prior to entry into the doctoral program.

With respect to motivational pattern, however, the Ph.D. group appears to have made the decision to go for the doctorate earlier in their career and were more likely to have made this decision in the school setting as opposedto the job setting, than was true for the Ed.D.'s. In general the Ph.D.'s decided to shoot for the doctoral degree prior to their decision about major field, while the reverse is true of the Ed.D.'s. The degree variable was the only one of six independent variables for which significant differences appeared in approach and avoidance motives. The results indicate however that Ph.D.'s were significantly less accepting of the approach statements and more accepting of the avoidance statements. This may simply mean that as a group they are somewhat more neutral in their rating.

The Ph.D.'s seem more likely to be influenced into the program by the presence of NDEA fellowships, institutional fellowships, assistantships, and scholarships. More of the Ed.D.'s seem to be more attracted by leave with pay or NDEA loans. While the degree groups were about equally likely to find it necessary to postpone entry into the program, the reasons for the postponements were somewhat different. The Ed.D.'s more often saw "demands of employment" and "lack of leave policy" as contributing reasons, while the Ph.D.'s more often came up with highly personal reasons classifiable only

The degree groups did not differ on the factors considered in their choice of institution, but degree groups did differ in the amount of time spent in various phases of their program. With respect to course work the Ed.D.'s seemed to either finish their course work relatively quickly or to drag out this program over a very long period of time. The Ph.D.'s however, seem to cluster around an intermediate length of time. In general, however, the Ph.D.'s devoted a slightly significantly less amount of time to the course work ($p < .05$). The groups did not differ on the amount of time spent on the thesis, and time spent on language requirements tended only to confirm the generality of this distinction between the two degrees. The Ph.D.'s much more often undertook their program as full-time students, but did not differ in the amount of time spent in residence nor incidence or residence requirements. In financing their residency the Ph.D. was much more likely to have been awarded a scholarship or fellowship, and he was more likely to have held an assitantship. On the other hand the Ed.D.'s were much more likely to have been on paid leave.

With respect to their program evaluations, the degree groups displayed a significant difference on 17 of the 29 dimensions evaluated. In general, the direction of the differences was toward less positive attitudes by the Ph.D.'s. The Ph.D.'s were less certain of the selectivity of the admissions policy, the caliber of their fellow doctoral students, and the quality of their instruction. At the same time they saw themselves as having more freedom within the program. The Ph.D.'s regarded the statistic requirement as having more value than did the Ed.D.'s. but at the same time they were less often obliged to fulfill such requirements. The Ph.D.'s perceived less encouragement of student-student and faculty-student interaction in their institutions but at the same time valued it less than did the Ed.D.'s. With respect to the staff appointment the Ph.D.'s more often saw a relationship between their appointment and their program objective, but were less convinced of the educational value of their appointment. The Ph.D.'s either saw a lot of research going on in their field of interest or very little. Yet it was the Ph.D.'s who were more likely to feel overemphasis on research and underemphasis on teaching in their program. The Ph.D.'s were less likely to give university libraries a high rating, and saw less institutional cooperation for purposes of data collection. Finally the Ph.D.'s were significantly less enthusiastic about their likelihood of returning to the same institution.

With respect to the rating of program dimensions contributing most to professional development, the degree groups differed significantly on only one. Fewer Ed.D.'s than Ph.D.'s rated teaching assistantship as "important' or "highly important." However, this simply may reflect the fact that the Ph.D.'s were somewhat more likely to hold a teaching assistantship. The Ph.D.'s were significantly less likely to encounter critical periods in their program, but differed not at all with the Ed.D.'s on the selection of individuals providing encouragement during the program. With respect to present position and aspiration the Ed.D.'s were much more likely to be returning to the same position or institution, and considerably less likely than the Ph.D.'s to have held no position. The Ph.D.'s are much more likely to be working in the college setting, and within the college setting they are much more likely than Ed.D.'s to be employed by institutions having a doctoral program in education. The Ph.D.'s report slightly lower salaries than do the Ed.D.'s for the first year on the job but at the same time tended to report greater increment due to the degree. In addition the Ph.D.'s are much more likely to be found in the large universities and much less likely to be found in the public schools, but about equally likely as the Ed.D.'s to be found in the small colleges. In addition the Ph.D.'s are somewhat more likely to be employed by nonprofit organizations and more likely to be self employed. In looking at the employment settings to which they aspire the degree groups both indicated desire to move away from the public school to the small colleges to the universities but the differences between the degree groups remains significant. With respect to the kinds of responsibilities in the present position, the Ph.D.'s are significantly less likely to be involved in administration or supervision, much more likely to be involved in research and writing but somewhat more likely to have a service function. Interesting enough the degree groups do not differ significantly on the extent of involvement in teacher preparation, but when asked the desired extent of involvement the Ph.D.'s more often indicate a desire for less or no involvement in the preparation of teachers. There is some evidence of a slight trend toward greater involvement with graduate students on the part of the Ph.D.'s, and in describing the kind of students with which they would prefer to work, the Ph.D.'s indicate an even more pronounced desire to be less involved with undergraduate students. Finally, the degree groups do not differ in their perception of the likelihood of attaining their aspirations within their present organization.

Most educators probably carry in their minds some kind of image of the Ph.D. as opposed to the Ed.D., or of the persons holding these degrees. The distinction between the degrees often takes the form of a researcher-practitioner. From the standpoint of this dichotomy, it is possible to pull out a great deal of supporting evidence. However, the fact that more Ph.D.'s than Ed.D.'s reported a statistic requirement as inapplicable to them suggests that, if the dichotomy is to hold, the definition of research must be broadened considerably to include historical and analytical research as well as empirical. The fact that social foundations majors, which include philosophy of education majors, tend more often to take the Ph.D. degree would be a further indication of this. It might be better to generate a dichotomy in terms of a practitioner versus scholar, in the sense that the scholar is the person more likely to end up as a university professor engaging in whatever kind of research is peculiar to his field, along with teaching college level students. If the latter dichotomy is taken, nearly all the data shows trends, that is to say significant difference between responses in the Ph.D. and the Ed.D. groups, which directly support the dichotomy. However, it should be noted that while the degree groups tend to show statistical independence with respect to responses that are predictable, the tremendous overlap in the distribution should not be ignored. For example, educational psychology majors tend to be perceived as the field within education where much competence and activity in educational research is located, yet 27.5 percent of educational psychology majors take the Ed.D. degree. The social foundations area which includes the history of education, the philosophy of education and sociology of education tends to be seen as the foundational area with professional activities closely aligned within classical scholarly endeavors, yet 46.9 percent of these individuals elected the Ed.D. While the elementary education majors tend to be perceived largely as practitioners, more than a fourth elect to pursue the Ph.D. While in general the Ph.D.'s are less likely to work in the public school, and are more likely to be working at the college level, of the first jobs taken by the new Ed.D.'s more than 50 percent of them did take college positions. While 38.5 percent of the Ph.D.'s took assignments as assistant professors, as opposed to only 25.8 percent of the Ed.D.'s in absolute figures 348 Ed.D.'s took jobs as assistant professors and only 272 Ph.D.'s did so. At the full professor level with brand new degrees 49 Ed.D.'s held such appointments and only 19 Ph.D.'s. Among doctoral producing institutions 34 percent of the Ph.D.'s were hired by the institutions as opposed to 21.1 percent of the Ed.D.'s. Nevertheless 284 Ed.D.'s as opposed to only 241 Ph.D.'s actually obtained jobs in these institutions. If the Ed.D.'s obtain the position to which they aspire more, then 70 percent will end up as college teachers. While a larger proportion of the Ph.D.'s now hold jobs involving a research dimension, in absolute numbers, again, 521 Ed.D.'s now have positions involving a research dimension and 367 Ph.D.'s have jobs involving a research dimension. In looking at the positions to which they aspire the results indicate that 70 percent of the Ph.D.'s aspired to jobs involving research, but 60 percent of the Ed.D.'s do likewise. At present approximately 11.5 percent of the Ed.D.'s now hold jobs working mostly or entirely with graduate students. If the desires of the Ed.D.'s are fulfilled 26.1 percent will be working mostly or entirely with graduate students.

The point of the above presentation is to suggest, obviously, that while the generally maintained distinction between the two degrees holds, there are many exceptions. Secondly, when the difference in the production rate of the two degrees is taken into account it seems that in terms of absolute numbers there are probably more Ed.D.'s going into research and teaching at the college level than there are Ph.D.'s. When one looks at fields which seem to have an apparent kinship with practice (e.g., administration or elementary education) there are numerous individuals who pursue the Ph.D. In view of the growing shortage of college teachers in education as well as researchers in education, it seems likely that if a practitioner holding the Ed.D. degree desires to do research and teach at the college level he may be able to find a job doing precisely that.

In some sense the traditional distinction between the degrees has been made largely in terms of the future goals and professional activities of the individual. And since the profession has no means by which it can prevent a doctoral graduate from changing his goals, nor means of restricting his professional activities, a degree distinction defined in terms of goals would seem to be rather meaningless. It is quite possible in a number of institutions to obtain a degree in educational research or experimental design with no specifications that the degree be the Ph.D. In some institutions, by virtue of the fact that only the Ph.D. is offered, and an individual aspires to be only a practitioner, it is probable that that institution will permit him to pursue the Ph.D. degree in his field. It is suggested here that the old distinction between degrees be discarded, to be replaced by, perhaps, simple statements indicating local distinctions and requirements.

There does, however, seem to be at least one other possibility. It is becoming more and more recognized by writers in the field of higher education (Ashton, 1965) that there are inherent difficulties in attempting to bring about drastic changes in the Ph.D. degree. These writers point to an essential conservatism of graduate schools, of vested interests of certain kinds of departments, and of an historical image and meaning of the Ph.D. developed through tradition, and warranting preservation. The Ed.D. degree on the other hand has no long tradition. More often than not it is controlled by the school of education, as opposed to the graduate school and there are probably more vested interests working to have this degree abandoned rather than to preserve its image. These factors may be an advantage in the long run. The Ed.D. degree could be viewed as a degree having great potential flexibility. It could become the program where radical innovations can be introduced, where new approaches which in the past have been disapproved by graduate counsels, can be tried out. In some sense the original development of the degree was an attempt to do precisely this, except that the departure from the traditional program was along a single direction. This suggestion is simply that the deviations be along many directions.

Younger Versus Older Graduates

In using age as an independent variable all persons 35 years and under were considered in the "younger" group and those 39 and older were considered in the "older" group. In general the age variable tended to show response patterns similar to the degree variable. In fact, to a large extent these variables are somewhat confounded, in that the Ph.D.'s were more highly represented in the younger group than the older. In some ways, however, the age variable was more powerful than the degree variable in the sense that a considerably larger proportion of the responses were found to differ. Variations between age and major field, community background, and program length have already been mentioned. In the area of motivation the older group were more often influenced by former professors, spouse, and parents. It also appears that the younger group were more influenced into programs by NDEA fellowships, assistantships, NDEA loans, and university loans while the older group were more likely influenced by a "leave policy." The younger students less often felt a postponement was necessary before entering the program, and significantly less often checked financial reasons, demands of employment, difficulties with family adjustment, health problems and lack of leave policy as reasons for postponement.

With respect to their program the younger group was more likely to undertake the program as a full-time student, spent more time in residency, finished their course work more quickly, and tended less often to drag out the dissertation over a long period ot time. During residency the younger student is more likely to hold a fellowship, scholarship, or an assistantship, and less likely to be on paid leave. He is more likely than his older counterpart to be on the G. I. Bill, and is more likely to borrow money for his residency. In addition he is more likely to use savings as well as depend on his wife for a financial resource. The general results on sources of finance during residency seem to suggest that the younger group apparently attempted to complete their programs on some kind of crash basis. They leave their jobs, and, drawing on a variety of financial resources, try to complete the degree before all are exhausted. The results clearly suggest a strong dependance, not only on a great variety of resources, but also a greater dependance upon each category of resource than is true in the case of the older group. The older group, on the other hand, presents a picture of a much more financially secure individual working through his degree program at a much more leisurely pace on a part-time basis. He owns his own home, and the part-time aspect of the program presents no substantial drain on his resources. When and if he decides to go into residency, he either takes leave with pay or manages to support himself without drawing heavily even upon his savings.

With respect to the 29 dimensions of programs, the younger individuals, as opposed to the older were less satisified with their initial interview, less impressed with the caliber of their fellow doctoral students. With respect to their program they were less positive about the appropriateness of their course work to their professional interest, but were more pleased with balance over majors and minors. The younger group was more pleased with their freedom and self direction, but perceived less superior instruction.

The younger group was more negative in their responses to the language requirement than the older group, whether or not they were required to pass this requirement. Finally the younger group saw more value in the statistic requirement.

The younger group perceived more student interaction and faculty interaction than did the older group and tended to assign it more value. They tended to hold more often a research or teaching assistantship, and saw the appointment as more closely related to their programs, but tended to be somewhat less enthusiastic about the educational value of this appointment. The younger group saw more research going on in their field and saw themselves as more free to participate in it. The younger group also was more likely to see an imbalance in research-teaching emphases then the older graduates. The younger graduates seem somewhat less enthusiastic about the value of their dissertation than the older, and generally saw more freedom of choice in selecting their dissertation problem. The younger individuals seem more satisfied with their dissertation directors, and were more satisfied with the availability of sources of data. The younger group seemed more pleased with the library facilities and apparently less often undertook non-empirical dissertations. Finally the age groups did not differ in their enthusiasm for the institution that granted their degree. In all of the 29 program dimensions for which evaluations were requested the age groups proved to be statistically independent on 25 of these, but unlike the degree groups the trend is not uniformly in a direction of more conservative ratings, or more negative feelings.

With respect to the program dimensions that contributed most to their professional development the younger group was much less likely to attach importance to independent reading or to the dissertation, but more likely to assign importance to interaction with the faculty and other students. Teaching and research assistantships were also more often considered as significant program dimensions by the younger group, but this may well be reflecting the greater incidence of such appointments among the younger group. As predicted, the younger group encountered fewer critical periods requiring that they temporarily discontinue their program, but more often than the older group encountered near critical periods. The younger group significantly less often indicated that personal health, family problems and work pressures were the contributing factors to their problems. Interestingly enough, the age groups did not differ on the incidence of financial problems.

With respect to present position and aspirations, it appears that the younger group is much more likely to be on the job market upon receipt of their degree. In addition, the younger group is less likely to hold a position in a non-university setting, but within the university setting the older group is more likely to hold higher academic rank. The results further indicate the younger graduates are much more likely to be employed by a college or university, and are more likely to be employed by a doctoral granting institution than is true of the older graduates. In fact 32.5 percent of the younger group, as opposed to 19.9 percent of the older group, is employed by a doctorate producing institution. During the first year on the job, the younger group make a significantly lower salary than the older, but reported greater increments due to receipt of the degree. The age groups seem represented about equally well in the small colleges, but the younger group is considerably more likely to be employed by a large university, while the older group is more likely to be employed in the public schools. In addition the younger groups are much more desirous of moving into the large university from both the small colleges and the public schools.

The younger group in general is less likely to have administrative responsibilites associated with their present position and more likely to be involved in teaching and research. The younger group is less likely to have a service function connected with his degree. Finally the younger graduate is more likely to be uninvolved in teacher preparation and more likely to be working with graduate students, amd more optimistic about attaining their aspirations within their present organization.

Major Field

In spite of the grossness of the 15 categories of the major herein defined many systematic differences do emerge, most of which are predictable. The preponderance of the Ed.D. degrees among administrators, secondary education majors, etc. has already been mentioned, along with reversals in the case of educational psychology majors, psychology majors, and social foundation majors. With respect to age, secondary education has the smallest proportion in the "younger" group followed by higher education majors, administration majors, and special education majors. One might have expected the administration majors to be the oldest on the average, but such is not the case. The youngest majors seem to be educational psychology, psychology, and student personnel majors. With respect to community background a number of differences have already been noted, as well as the relationship between major field and program length and program size.

While about 18 percent of the sample is female it appears that only 6.8 percent of administration graduates, and 8.8 percent of secondary education graduates are women. Only elementary education seems to be well represented, with 41.2 percent of elementary graduates being women. Nearly all other major fields find the women represented at nearly the expected level.

While 36.8 percent of the total sample had fathers in professional or managerial occupations, it seems that proportionately more fathers of those who majored in psychology, higher education, educational psychology, and student personnel fell in this category. At the same time proportionately fewer physical education majors, and practical arts majors had fathers in a professional or managerial occupation. While 22 percent of the practical arts majors had fathers in agriculture, only 6 percent of the higher education majors had fathers so occupied. While 26 percent of the fathers of elementary majors were engaged in skilled labor, only 8.9 percent of the psychology majors had fathers so employed. While generally 41.3 percent of the total sample had fathers who terminated their education at the elementary level, the results indicate that practical arts majors, guidance majors, and secondary education majors had a significantly greater proportion of fathers who terminated their education at this point. On the other hand those majoring in math and science education, student personnel, and educational psychology tended to come from families whose father terminated their education at a higher level.

Due to some problems in statistical analysis major field was rarely used as a variable in the investigation of motivational patterns, and program discriptions and evaluations. However chi-squared analysis was conducted for the item requesting the likelihood of choosing the same institution again for their doctoral study. The results showed a highly significant chi-square suggesting that student personnel majors, practical arts majors and physical education majors seemed to be the most certain that they would again choose the same institution. On the other hand psychology majors and higher education majors seem less often to make use of the most positive category. The most negative reactions seem to come from special education majors and psychology majors. Combining the two most positive categories, indicating that they would be either "extremely likely" or "highly likely" to choose the same institution, it appears that psychology majors, educational psychology majors and higher education majors had the least regard for the institutions granting their degree.

With respect to availability on the job market it would appear that administration majors, practical arts majors, psychology majors and student personnel majors are the most likely to be returning to the same position. On the other hand, educational psychology majors and higher education majors are least likely to be doing so. In addition it would appear that practical arts majors have the highest probability of being employed by an institution granting the doctorate in education, while administration majors are the least likely to be employed in this kind of institution. Keep in mind that 25.5 percent of the total sample in their first position were employed by doctorate producing institutions, and 35.9 percent were employed by non-doctoral producing institutions. It would appear that of those employed at the university level the majority should be employed by non-doctoral producing institutions. However, this trend is reversed for special education, educational psychology and psychology majors; whereas for secondary education, higher education, the subject areas and curriculum majors, the odds are fully two-to-one that the graduates will be employed in institutions not granting the doctorate.

With respect to salary it would appear that the lion's share of the very high salaries go to administrators. Most under represented at the high salary level are elementary majors, guidance majors and subject area majors. Most likely to be found at the under $10,000 level are physical education majors and those majoring in the subject areas. Further evidence about present employing organizations suggests that those individuals majoring in higher education, the subject areas and physical education are most likely to be found in the small colleges, while psychology majors and administration majors are least likely to be found in these settings. The majors most likely to be employed by the large universities immediately upon receipt of their degree are practical arts majors, special education majors and student personnel majors. On the other hand, large universities are least likely to employ individuals with brand new degrees in administration, curriculum, and the subject fields. Public schools employ more than one half of the administration majors and a more than a third of the curriculum majors. Least likely to be employed at the public school are higher education majors, practical arts majors,and educational psychology majors.

With respect to duties involved in the present position the results indicate that those most likely to hold administrative positions are those who majored in administration. Of the other fields special education majors, higher education majors,and student personnel majors are also quite likely to have some administrative involvement. Least likely to have an administrative dimension in their present position are elementary education majors, math and science education majors and educational psychology majors. Most likely to be involved in teaching are curriculum majors and social foundations majors with only 6.3 percent and 8.2 percent reporting no involvement respectively.

The 30 to 70 percent category of involvement represents the modal extent of teaching load for nine of the fifteen majors. For the remaining six in no case does the mode exceed 70 percent. Student personnel majors, psychology majors and higher education majors along with administration majors all indicate that the respective modal groups had no teaching responsibilities, although only psychology majors and administration majors have an actual majority in this category. Most likely to have teaching loads in excess of 70 percent are social foundation majors, subject area majors, and physical education majors.

Most likely to be devoting some of their time to research are educational psychology majors with more than two thirds (68.3 percent) indicating some involvement. Of the remaining fields psychology majors, guidance majors, and student personnel majors are quite likely to report involvement in research. Least likely to have a research dimension in their present positions are secondary education majors, subject area majors, and practical arts majors. It is, however, rare indeed for a person with a brand new doctorate to be heavily involved in research. In fact only fourteen persons in the entire sample indicate involvement of greater than 80 percent.

Most likely to be involved in teacher preparation are psychology majors with 40 percent indicating no involvement. Of the remaining majors less apt to be involved are guidance majors, student personnel majors and administration majors. In discribing their desired position the proportion of the various majors indicating no involvement decreases for all fifteen major areas. Likewise for the category "almost entirely" involved, there is a consistent decrease for all fifteen majors. Hence, the general trend suggested by the total data holds for each major. Ten of the fifteen majors locate their modal responses in the category "to a large extent." The remaining five, educational psychology, higher education, guidance majors, student personnel majors, and psychology majors tend to desire somewhat less involvement than the other ten.

Student personnel majors, social foundation majors are most likely to be entirely involved with undergraduates. Least likely to work with undergraduates are special education majors, pscyhology majors, administration majors, and curriculum majors. Those most likely to be working "mostly or entirely" with graduate students includes again social foundation majors, educational psychology majors, psychology, and guidance majors. Least likely to have positions working entirely or mostly with graduate students are physical education majors, practical arts majors, elementary majors, secondary majors, and the subject area majors.

Finally student personnel majors, curriculum majors, and administration majors are the most pessimistic about the likelihood of achieving their goals within their present organizations. It is interesting to note that curriculum majors and administration majors are also most likely to be employed in the public school setting, and it has been noted earlier that there appears to be a strong desire to move out of the public school setting. Most optimistic about the likelihood of achieving their professional goals in their present organization are educational psychology majors, math and science education majors, practical arts majors, and special education majors.

The evidence presented in this section continues to point to a very high degree of independence of many of the majors. The different majors represent different age groups, tend to come from different community backgrounds, reflect different attitudes toward themselves and their program, pick different kind of jobs in different kinds of settings, and involving different kinds of responsibilities. Of course much of this is to be expected. They are, in fact, during their doctoral program preparing themselves in many cases for very different kinds of functions. It may be reasonable at this point to raise the question of whether or not it is ever reasonable to throw them together and treat them as if they were homogeneous groups. Yet this has been done in this study with the only justification offered being that they all have degrees in education. Perhaps, the term "education" is too vague, that is, too diversified in meaning to be considered a basket into which all its varied sub-fields can be placed and be meaningfully labeled with a single name. Administration majors, by virture of their sheer number, tend to affect the total data, and at the same time the responses systematically differ from those of most other majors. Educational psychology and psychology majors constitute another group which tend on one hand to respond alike with respect to each other and differently with respect to nearly all other majors. Elementary education, secondary education, and curriculum majors seem to constitute another group within which responses vary less than between this group and others. This may imply that the most meaningful kind of study may not be of education majors generally, but of specific areas of specialization within the field. This is not unreasonable. It is rather rare for all sciences, for example, to be considered together. For to do so suggests that astronomers and zoologists are alike just because they are both generally classified as scientists. Perhaps associations aligned with the various areas of specialization within education are in the best position to undertake periodic evaluative surveys of the kind represented by this study.

Community Origin

This particular variable seemed to be most important in the early part of the study. In general community origin seems to be related to choice of degree, age, major field, and certain background data of the individual. With respect to the last named, community origin was significantly related to such dimensions as father's education and occupation, size of high school graduating class, and complexity of undergraduate institution. Most of the differences were highly predictable. It appears that the differences tended to disappear when the questionnaire focused upon motives for entering the program, description of the program, evaluation of the program, and, surprisingly, did not reappear strongly in the data relative to characteristics of the present or desired position. In other words the data seemed to suggest that community origin may well be related to the efficiency with which an individual gets into the program, his choice of area of specialization, his age upon entering the program, and his degree choice. But it also appears that once in the program and having made these choices, the variables simply cease to function.

Length of Program

Although program length did in fact relate to the large number of other variables, a very close relationship resulted between length of program and age. There were also rather consistent similarities in the direction of differences between the age groups and the long versus short program groups. Hence, the writer was led to the interpretation that these variables were insufficiently independent to be considered separately.

Major Versus Minor Producing Institutions

It had been hoped that this variable, which was the only institutional variable included in the study, would show some relationships, particularly with evaluation of program dimensions. This did not prove to be the case either with program evaluations or any other section of the questionnaire. Relationships did emerge suggesting that a large proportion of minor producing institutions tended to grant the Ed.D. degree and that small programs were more likely to produce guidance and social foundation majors and less likely to produce physical education, practical arts and subject area majors. There was, however, no relationship with age, program length, or community origin. In the area of program evaluations two variables were seen as potentially related to program size, those were of student-student interaction and faculty-student interaction. However, the results in comparing the major versus the minor producing institutions indicated that individuals from large programs perceived significantly more student-student interaction, while with respect to student-faculty interaction, the results showed no differences. Students from major producing institutions did, however, perceive significantly more research in their field of interest and were also significantly more likely to perceive an overemphasis on research than those from smaller institutions. Individuals from major producing institutions tended to perceive their library as more adequate. On the other hand respondents from small programs more often rated research facilities highly satisfactory or moderately satisfactory. Respondents from major producing institutions more often indicated that the item was inapplicable, suggesting the possibility of more non-empirical research at institutions having large numbers of graduate students. Finally, individuals from institutions with large programs seemed to feel significantly more positive toward their institution than those individuals from small programs.

Changes Since the 1956-1958 Sample

Probably the change of greatest significance since the last study are the production data presented earlier, along with the data on program length, age of sample, and distribution by sex. Production seems to have gone up at a rate which compares favorably with other fields. The length of program on the average has been shortenedby more than a year. The mean age of the group is unchanged, and the distribution by sex shows a very slight decrease in the proportion of women represented in the sample. One of the findings of interest is the fact that the proportion of individuals in the sample who first considered undertaking the doctoral degree during their post-bachelor's teaching experience doubled in the past six years. This increase, from approximately 5 percent to 13.6 percent, while not comprising a significant proportion of the total group, may well suggest closer relationships between institutions and young teachers than has been the case in the past. In the 1956-1958 sample, 59.0 percent immediately upon receipt of their degree took positions in colleges and universities. For the present sample the proportion is approximately 56 percent. In the earlier study 27.2 percent of the sample indicated that they were not in any way involved in teacher education; for the present sample this figure is 10.6 percent. Hence, the figures suggest that in spite of the fact that there is a growing shortage of college teachers of education the proportion of the total sample actually taking such positions is unchanged.

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APPENDIX A

SUPPLEMENTARY DATA

TABLE

1 Distribution by Major Field

2 Institutions Granting Bachelor's Degree to the Respondents

3 Institutions Granting Master's Degree to the Respondents

4 Year of Receipt of Bachelor's Degree

5 Year of Receipt of Master's Degree

6 State in Which Presently Employed

TABLE 1 - DISTRIBUTION BY MAJOR FIELD

Major	Number
Administration, College	11
Administration, Elementary	17
Administration, General	475
Administration of Physical Education	0
Administration, Junior College	4
Administration, Religious Education	0
Administration, Secondary	10
Administration, Special Education	1
Administration, Student Personnel	34
Administration and College Teaching	0
Administration and Educational Service	2
Administration and Supervision	27
Adult Education	24
Agricultural Education	12
Anthropology	0
Art Education	13
Audio-Visual Education	4
Business Education	26
Camping	0
Child Development	7
Classroom Learning	3
Clinical Psychology	10
Comparative Education	6
Conservation	1
Counseling	23
Counseling and Guidance	47
Counseling Psychology	28
Counseling and Educational Psychology	1
College Teaching	4
Curriculum, Elementary	6
Curriculum, General	63
Curriculum and Research	7
Curriculum and Supervision	8
Curriculum and Teaching	29
Dramatic Arts Education	4
Education, General	27
Educational Psychology	120
Educational Psychology and Guidance	18
Educational Psychology and Research or Measurment	8
Education for Marriage and Family Life	3
Elementary Education	103
Elementary Education-Supervision	0
Engineering Education	0
English Education	18
Experimental Design	7
Fine Arts Education	3
Foreign Language Education	1
Guidance, General	137
Guidance and Special Education	1
Health, Physical Education, and Recreation	12
Higher Education	54
History of Education	6
History and Philosophy of Education	11
Home Economics Education	3
Human Relations Education	4
Human Development	8
Industrial Arts	47
Instruction, Teacher Education	0
Language or Communication Arts	3
Mathematics, Teaching of	27
Mental Health	0
Music Education	45
Nursing Education	9
Nutrition	0
Personal Psychology	1
Philosophy of Education	10
Physical Education	34
Psychology	51
Reading	12
Recreation	3
Safety Education	2
School Psychology	6
Science Education	49
Secondary Education	91
Secondary and Higher Education	5
Secondary Education (Measurement)	0
Social Foundations	22
Social Studies	25
Social Work	9
Special Education	46
Speech	8
Speech Pathology	4
Statistics and Measurement	11
Teacher Education	26
Vocational Education	8
Educational Television	1
Supervision	8
Others	2
No response	43

TABLE 2 - INSTITUTION GRANTING BACHELOR'S DEGREE TO THE RESPONDENTS

Institution	Number
Alabama	
Alabama A. & M.	1
Alabama College	1
Auburn	7
Howard College	3
State Teachers College	
Florence	2
Livingston	1
Troy	5
Stillman College	1
University of Alabama	9
Total	30
Arizona	
Arizona State College	
Flagstaff	5
Tempe	2
University of Arizona	7
Total	14
Arkansas	
Arkansas A. & M.	3
Arkansas State College	3
Arkansas State Teachers College	7
College of the Ozarks	1
Harding College	1
Quachita Baptist College	1
Southern State College	1
University of Arkansas	5
Total	22
California	
California State Polytechnic College	2
Chapman College	3
Chouinard Art Institute	2
College of the Pacific	5
Frenson State College	2
George Pepperdine College	1
LaVerne College	2
Long Beach City College	2
Los Angeles State College	3
Loyola University of Los Angeles	1
Mills College	1
Mount St. Mary's College	1
Pacific Union College	2
Pasadena College	1
Sacramento State College	3
St. Mary's College of California	2
San Diego State College	6
San Francisco State College	8
San Jose State College	8
Stanford University	7
University of California	
Berkley	16
Los Angeles	20
San Francisco	2
Santa Barbara	5
Davis	2
University of Redlands	2
University of Santa Clara	2
University of Southern California	15
Whittier College	5
Longbeach State	2
Total	133
Colorado	
Adams State College of Colorado	1
Colorado A. & M.	6
Colorado State College	14
Regis College	1
University of Colorado	7
University of Denver	12
Unclassifiable by state	2
Total	43
Connecticut	
Albertus Magnus College	1
Connecticut College	1
Hartford Seminary	2
Trinity College	1
University of Bridgeport	1
University of Connecticut	2
Wesleyan University	2
Yale	7
Unclassifiable by state	1
Total	18
Delaware	
District of Columbia	
Benjamin University	1
Catholic University of America	2
George Washington University	4

TABLE 2 - INSTITUTION GRANTING BACHELOR'S DEGREE TO THE RESPONDENTS (Continued)

Institution	Number
Howard University	2
Trinity College	1
Unclassifiable by state	1
Total	11
Florida	
Florida State University	6
Stetson University	1
University of Florida	10
University of Miami	7
Unclassifiable by state	3
Total	27
Georgia	
Agnes Scott College	1
Morehouse College	1
Berry College	1
Emory University	2
Fort Valley State College	1
Georgia State for Women	2
North Georgia College	1
Oglethorpe University	1
Tift College	1
University of Georgia	9
Wesleyan College	1
Unclassifiable by state	3
Total	24
Idaho	
College of Idaho	3
Idaho State University	4
Ricks College	1
University of Idaho	4
Total	12
Illinois	
Augustana College	6
Aurora College	1
Bethany	1
Bradley University	3
Carthage College	1
Chicago Teachers College	5
Concordia Teachers College	2
DePaul University	2
Eastern Illinois University	2
Eureka College	2
George Williams College	3
Greenville College	3
Illinois State Normal University	6
Illinois Wesleyan	3
Knox College	1
Lake Forest College	1
Loyola University	4
McCormick Theological Seminary	1
Mundelein College	1
North Central College	1
Northern Illinois University	7
Northwestern University	9
Rockford College	1
Roosevelt University	2
St. Xavier College	1
Southern Illinois University	12
Trinity Seminary and Bible College	1
University of Chicago	5
University of Illinois	14
Western Illinois University	11
Wheaton College	5
Unclassifiable by state	1
Total	118
Indiana	
Anderson College	2
Ball State University	6
Butler University	2
DePauw University	1
Fort Wayne Bible College	1
Goshen College	3
Grace Theological Seminary & Grace College	1
Hanover College	1
Huntington College	1
Indiana Central	1
Indiana University	14
Manchester College	2
Marion College	1
Purdue University	8
St. Mary's College	3
Taylor University	2
University of Notre Dame	1
Valparaiso University	1
Indiana State University	11
Unclassifiable by state	1
Total	63

TABLE 2 - INSTITUTION GRANTING BACHELOR'S DEGREE TO THE RESPONDENTS (Continued)

Institution	Number
Iowa	
Buena Vista College	2
Coe College	2
Cornell College	3
Drake University	5
Grinnell College	1
Iowa State A. & M.	7
Iowa State Teachers College	8
Loras College	3
Luther College	4
Morningside College	1
Parsons College	1
State University of Iowa	13
Wartburg College	1
Westmar College	2
Total	53
Kansas	
Baker University	3
Bethany College	1
Bethel College	1
Fort Hays Kansas State College	4
Friends University	1
Kansas State College of Agriculture & Applied Science	5
Kansas State Teachers College	8
Kansas State Teachers College Pittsburgh	4
Marymount College	1
McPherson College	1
Southwestern College	3
University of Kansas	8
University of Wichita	4
Total	44
Kentucky	
Berea College	1
Eastern Kentucky State College	2
Georgetown College	3
Kentucky Wesleyan College	1
Murray State College	1
Transylvania College	1
University of Kentucky	4
University of Louisville	1
Western Kentucky State College	2
Total	16
Louisiana	
Louisiana College	3
Louisiana Polytechnic Institute	1
Louisiana State University	1
Northeast Louisiana State College	1
Northwestern State College of Louisiana	5
Southeastern Louisiana College	1
Southern University	1
Southwestern Louisiana Institute	1
Tulane University of Louisiana	2
Xavier University	2
Total	18
Maine	
Bates	1
Farmington State Teachers College	1
Gorham State Teachers College	1
Washington State Teachers College	1
Total	4
Maryland	
Hood College	1
John Hopkins University	3
Loyola College	2
Maryland State Teachers College Bowie	1
Peabody Institute of the City of Baltimore	1
St. John's College	1
St. Joseph College	1
United States Naval Academy	2
University of Maryland	6
Western Maryland College	3
Unclassifiable by state	2
Total	23
Massachusetts	
American International College	1
Amherst College	2
Boston College	2
Boston University	17
College of the Holy Cross	1
College of Our Lady of the Elms	1
Gordan College	1
Harvard University	4

TABLE 2 - INSTITUTIONS GRANTING BACHELOR'S DEGREE TO THE RESPONDENTS (Continued)

Institution	Number
Massachusetts School of Art	2
New England Conservatory of Music	1
Northeastern University	1
Simmons College	1
Smith College	1
Springfield College	7
State Teachers College	
Bridgewater	1
Fitchburg	3
North Adams	1
Salem	3
Westfield	1
State Teachers College of Boston	1
Tufts University	3
University of Massachusetts	8
Wellesley College	3
Unclassifiable by state	1
Total	67
Michigan	
Albion College	1
Calvin College	4
Calvin Theological Seminary	1
Central Michigan University	5
Eastern Michigan University	7
Emmanuel Missionary College	1
Hope College	2
Kalamazoo College	1
Michigan State University	15
Northern Michigan University	3
University of Detroit	2
University of Michigan	15
Wayne State University	22
Western Michigan University	13
Total	92
Minnesota	
Gustavus Adolphus College	1
Macalester College	1
Northwestern College	1
St. Mary's College	1
State Colleges	
Bemidji State	2
Mankato State	1
Moorhead State	1
St. Cloud State	3
Winona State	1
University of Minnesota	28
Total	40
Mississippi	
Delta State College	2
Millsaps College	1
Mississippi College	4
Mississippi Southern College	2
Mississippi State University	4
University of Mississippi	2
Total	15
Missouri	
Central College	2
Central Missouri State College	6
Conception Seminary	1
Culber-Stockton College	1
Drury College	1
Harris Teachers College	1
Lincoln University	3
Northeast Missouri State Teachers College	8
Rockhurst	1
St. Louis University	1
Southeast Missouri State College	3
Southwest Missouri State College	7
Tarkio College	3
University of Kansas City	1
University of Missouri	20
Washington University	4
William Jewell College	2
Unclassifiable by state	1
Total	66
Montana	
College of Great Falls	1
Montana State College	5
Montana State University	4
Total	10
Nebraska	
Concordia Teachers College	1
Creighton University	1
Doane College	1
Hastings College	5
Midland College	4
Municipal University of Omaha	6
Nebraska State Teachers College	
Chadron	1
Kearney	5
Peru	2
Wayne	7

TABLE 2 - INSTITUTIONS GRANTING BACHELOR'S DEGREE TO THE RESPONDENTS (Continued)

Institution	Number
Nebraska Wesleyan University	2
University of Nebraska	10
Unclassifiable by state	1
Total	46
Nevada	
New Hampshire	
Dartmouth	3
Keene State College	1
Plymouth State College	1
University of New Hampshire	3
Total	8
New Jersey	
Don Bosco College	1
Drew University	1
Farleigh Dickenson University	2
New Jersey State Colleges	
Glassboro	3
Newark	4
Trenton	3
Montclair	8
Panzer College of P.E. & Hygiene	2
Princeton University	1
Rutgers University	8
St. Peter's College	2
Seton Hall University	2
Upsala College	1
Total	38
New Mexico	
Eastern New Mexico University	1
New Mexico Highlands University	1
New Mexico Western College	2
University of New Mexico	2
Total	6
New York	
Adelphi University	1
Alfred University	1
Brooklyn College	22
Canisius College	1
City College of the City of New York	27
Colgate University	2
College of New Rochelle	1
College of St. Rose	1
Columbia University	16
Cornell University	3
Elmira College	2
Fordham University	6
Hamilton College	1
Hartwick College	1
Hofstra University	2
Houghton College	2
Hunter College of the City of New York	16
Iona College	3
Julliard School of Music	2
Long Island University	5
Manhattan College	2
Manhattan School of Music	1
Maryknoll Seminary	1
New York University	29
New School	1
Niagara	1
Pratt Institute	1
Queens College of the City of New York	5
Roberts Wesleyan College	1
Russell Sage College	1
St. Bernadine of Siena College	1
St. Johns University	3
St. Lawrence University	2
Sara Lawrence College	1
State University of New York	
Cornell	1
College for Teachers at Albany	11
College for Teachers at Buffalo	4
Teachers College at Brockport	6
Teachers College at Cortland	1
Teachers College at Fredonia	4
Teachers College at New Paltz	2
Teachers College at Oneonta	3
Teachers College at Oswego	3
Teachers College at Potsdam	1
Syracuse University	10
Union College and University	2
University of Buffalo	1
University of Rochester	2
Wagner College	3

TABLE 2 - INSTITUTIONS GRANTING BACHELOR'S DEGREE TO THE RESPONDENTS. (Continued)

Institution	Number
U.S. Military Academy	1
Yeshiva University	4
Unclassifiable by state	2
Total	226
North Carolina	
A. & M. College of North Carolina	2
Appalachian State Teachers College	1
Bennett College	1
Catawba College	2
Davidson College	1
Duke University	6
East Carolina College	2
High Point College	1
Lenior-Rhyne College	1
North Carolina College at Durham	1
Queens College	1
Salem College	1
University of North Carolina	6
Greensboro	2
Wake Forest College	3
Western Carolina College	3
Winston-Salem Teachers College	1
Unclassifiable by state	1
Total	36
North Dakota	
Jamestown College	2
State Teachers College	
Dickinson	2
Mayville	2
Minot	3
Valley City	1
University of North Dakota	3
Total	13
Ohio	
Antioch	6
Ashland College	1
Bluffton College	2
Bowling Green State University	9
Capital University	4
Cleveland Institute of Music	1
College of St. Mary of the Spring	1
College of Wooster	6
Denison University	1
Heidelberg College	2
Hiram College	2
John Carroll University	1
Kent State University	10
Marietta College	1
Miami University	3
Mount Union College	1
Muskingum College	2
Notre Dame College	3
Oberlin College	3
Ohio State University	29
Ohio University	8
Ohio Wesleyan University	3
Rio Grande College	1
United Theological Seminary	1
University of Akron	6
University of Cincinnati	4
University of Dayton	3
University of Toledo	5
Western Reserve University	3
Wilmington College	1
Whittenberg College	1
Xavier University	1
Youngstown University	1
Unclassifiable by state	4
Total	130
Oklahoma	
Bethany-Nazarene College	1
Central State College	8
East Central State College	2
Northeastern State College	1
Northwestern State College	1
Oklahoma A. & M.	7
Oklahoma Baptist University	4
Oklahoma City University	3
Oklahoma College for Women	1
Phillips University	3
Southeastern State College	4
Southwestern State College	4
University of Oklahoma	4
University of Tulsa	2
Total	45
Oregon	
Cascade College	1
Eastern Oregon College	3
George Fox College	1
Lewis and Clark College	2

TABLE 2 - INSTITUTIONS GRANTING BACHELOR'S DEGREE TO THE RESPONDENTS (Continued)

Institution	Number
Oregon College of Education	4
Oregon State College	6
Pacific University	1
University of Oregon	11
University of Portland	1
Willamette University	3
Total	33
Pennsylvania	
Allegheny College	1
Beaver College	1
Bucknell University	2
Carnegie Institute of Technology	2
College Misericordia	1
Dickinson College	1
Drexel Institute of Technology	1
Duquesne University	5
Elizabethtown College	2
Franklin & Marshall College	1
Gannon College	1
Geneva College	3
Grove City College	1
Jamiata College	1
Lafayette College	3
Lebanon Valley College	1
Lehigh University	2
Muhlenberg College	1
Pennsylvania State University	17
St. Charles Borromeo Seminary	1
St. Joseph's College	1
St. Vincent College	1
State Teachers College	
Bloomsburg	4
California	5
Clarion	3
East Stroudsbury	1
Edinboro	2
Indiana	2
Kutztown	2
Lock Haven	1
Mansfield	2
Millersville	3
Shippensburg	3
West Chester	3
Susquehanna University	1
Swarthmore College	2
Temple University	13
Thiel College	1
University of Pennsylvania	6
University of Pittsburgh	9
Ursinus College	2
Villanova University	1
Weynesburg College	1
Westminster College	1
Slippery Rock	7
Unclasifiable by state	2
Total	127
Rhode Island	
Brown University	2
Providence College	1
Rhode Island College	2
University of Rhode Island	3
Total	8
South Carolina	
Bob Jones University	3
Citadel, Military College of South Carolina	1
Claflin College	1
Clemson Agricultural College	3
Erskine College	1
Furman University	2
Limestone College	1
Newberry College	2
Presbyterian College	1
South Carolina State College	2
University of South Carolina	3
Winthrop College	2
Wofford College	3
Total	25
South Dakota	
Augustana College	1
Dakota Wesleyan University	1
Huron College	1
Northern State Teachers College	4
South Dakota State A. & M.	3
University of South Dakota	1
Yankton College	2
Total	13

TABLE 2 - INSTITUTIONS GRANTING BACHELOR'S DEGREE TO THE RESPONDENTS (Continued)

Institution	Number
Tennessee	
Austin Peay State College	1
Bethel College	2
Carson-Newman College	1
Cumberland University	1
David Lipscomb College	3
Fisk University	1
George Peabody College for Teachers	5
Lane College	1
Madison College	1
Maryville College	2
Memphis State University	2
Middle Tennessee State College	3
Siena College	1
Southwestern at Memphis	1
Tennessee Polytechnic Institute	2
Tusculum College	1
Union University	3
University of Chattanooga	1
University of the South	1
University of Tennessee	5
Vanderbilet University	3
Unclassifiable by state	1
Total	42
Texas	
Abilene Christian College	6
Baylor University	5
Bishop College	1
East Texas Baptist College	1
East Texas State College	7
Hardin-Simmons University	1
Howard Payne College	2
North Texas State University	13
Sam Houston State Teachers College	6
Southern Methodist University	3
South West Texas State College	2
Southwestern Baptist Theological Seminary	1
Sul Ross State College	1
Texas A. & M.	
College Station	5
Prairie View	2
Texas Christian University	1
Texas Lutheran College	1
Texas Women's University	2
Texas Technology College	8
Trinity University	2
University of Corpus Christi	2
University of Houston	5
University of Texas	2
Texas Western	1
West Texas State	3
Unclassifiable by state	2
Total	85
Utah	
Brigham Young University	14
University of Utah	17
Utah State University of Agriculture and Applied Science	10
Total	41
Vermont	
Middlebury College	2
Norwich University	1
University of Vermont and State Agriculture College	2
Total	5
Virginia	
Bridgewater College	1
College of William & Mary	3
Emory & Henry College	1
Hampden-Sydney College	2
Roanoke College	1
University of Virginia	4
Virginia Polytechnic Institute	2
Radford College	2
Unclassifiable by state	4
Total	20
Washington	
Central Washington State College	5
College of Puget Sound	2
Eastern Washington State College	3
Pacific Lutheran University	3
Seattle Pacific College	1
Seattle University	1
State College of Washington	1
University of Washington	10
Walla Walla College	4
Western Washington State College	6
Total	36

TABLE 2 - INSTITUTIONS GRANTING BACHELOR'S DEGREE TO THE RESPONDENTS (Continued)

Institution	Number
West Virginia	
Bethany College	2
Concord College	2
Marshall University	2
West Virginia University	3
West Virginia Wesleyan College	2
Total	11
Wisconsin	
Alverno College	1
Beloit College	2
Lawrence College	1
Marquette University	4
Milton	1
South Norbert College	3
Stout State College	5
University of Wisconsin	12
Wisconsin State College	
Eau Claire	4
LaCrosse	4
Plattsville	2
Stevens Point	1
White River	4
Total	44
Wyoming	
University of Wyoming	6
Total	6
Total No Response	3

TABLE 3 - INSTITUTIONS GRANTING MASTER'S DEGREE TO THE RESPONDENTS

Institution	Number
Alabama	
Auburn	6
Birmingham Southern	1
University of Alabama	14
Unclassifiable by state	1
Total	22
Arizona	
Arizona State College (Flagstaff)	6
Arizona State College (Tempe)	2
University of Arizona	7
Unclassifiable by state	1
Total	16
Arkansas	
Arkansas State College	1
Harding College	1
University of Arkansas	10
Total	12
California	
California State Polytechnic College	2
Claremont Men's College	8
College of the Pacific	1
Fresno State College	1
Fuller Theological Seminary	1
Immaculate Heart College	1
Long Beach City College	5
Los Angeles State College of Applied Arts and Science	5
Loyola University of Los Angeles	1
Occidental College	1
Pacific Union College	1
Sacramento State College	3
San Diego State College	7
San Francisco State College	14
San Jose State College	5
Stanford University	15
University of California	13
Los Angeles	19
San Francisco	4
Santa Barbara	1
University of Redlands	1
University of Southern California	34
Whittier College	3
Total	146
Colorado	
Adams State College	1
Colorado A. & M. (Colorado State University)	9
Colorado College	1
Colorado State College of Education	40
University of Colorado	14
University of Denver	15
Total	80
Connecticut	
Trinity College	1
University of Bridgeport	2
University of Connecticut	3
Wesleyan University	1
Yale University	3
Unclassifiable by state	2
Total	12
Delaware	
University of Delaware	2
Total	2
District of Columbia	
Benjamin University	8
Catholic University of America	7
Gallaudet College	1
George Washington University	8
Total	24
Florida	
Florida State University	10
Stetson University	4
University of Florida	18
University of Miami	5
Total	37
Georgia	
Atlanta University	2
Emory University	3
Mercer University	1
University of Georgia	12
Unclassifiable by state	2
Total	20

TABLE 3 - INSTITUTIONS GRANTING MASTER'S DEGREE TO THE RESPONDENTS (Continued)

Institution	Number
Idaho	
College of Idaho	1
Idaho State University	1
University of Idaho	6
Unclassifiable by state	4
Total	12
Illinois	
Blackburn College	1
Bradley University	4
Chicago Teachers College	1
Columbia College	1
DePaul University	5
Eastern Illinois University	1
Illinois State Normal University	2
Loyola University	3
National College of Education	1
Northern Illinois University	3
Northwestern University	26
Roosevely University	2
Southern Illinois University	11
University of Chicago	27
University of Illinois	30
Western Illinois University	7
Unclassifiable by state	1
Total	126
Indiana	
Ball State Teachers College	10
Indiana University	22
Purdue University	9
St. Mary's College	1
University of Notre Dame	3
Indiana State University	8
Total	53
Iowa	
Drake University	8
Iowa State A. & M.	8
State University of Iowa	27
Iowa State Teachers College	2
Total	45
Kansas	
Fort Hays Kansas State College	4
Kansas State College of Agriculture & Applied Science	4
Kansas State Teachers College (Emporia)	8
Kansas State Teachers College (Pittsburg)	5
University of Kansas	9
University of Wichita	6
Total	36
Kentucky	
Eastern Kentucky State College	1
Morehead State College	1
Murray State College	3
St. Mary's College	1
University of Kentucky	8
University of Louisville	2
Total	16
Louisiana	
Louisiana State University and A. & M. College	8
New Orleans Baptist Theological Seminary	1
Tulane University of Louisiana	2
Xavier University	1
Total	12
Maine	
University of Maine	1
Total	1
Maryland	
John Hopkins University	3
Peabody Institute of the City of Baltimore	2
University of Maryland	12
Total	17
Massachusetts	
Boston College	2
Boston University	22
Clark University	1
Harvard University	16
Northeastern University	1
Simmons College	1
Springfield College	10
State Teachers College Fitchburg	2
University of Massachusetts	2
Total	57

TABLE 3 - INSTITUTIONS GRANTING MASTER'S DEGREE TO THE RESPONDENTS (Continued)

Institution	Number
Michigan	
Eastern Michigan University	1
Michigan State University	23
University of Detroit	2
University of Michigan	41
Wayne State University	28
Western Michigan University	2
Unclassifiable by state	2
Total	99
Minnesota	
Macalester College	1
St. Cloud State College	1
Winona State College	1
University of Minnesota	35
Total	38
Mississippi	
Mississippi College	4
Mississippi Southern College	4
Mississippi State University	2
University of Mississippi	5
Total	15
Missouri	
Central Missouri State College	5
Drury College	1
Northeast Missouri State Teachers College	2
St. Louis University	5
University of Kansas City	2
University of Missouri	29
Washington University	9
Total	53
Montana	
Montana State College	2
Montana State University	5
Total	7
Nebraska	
Creighton University	1
Municipal University of Omaha	6
Nebraska State Teachers College	
(Kearney)	1
(Wayne)	1
University of Nebraska	22
Total	31
Nevada	0
New Hampshire	
University of New Hampshire	2
Total	2
New Jersey	
Drew University	1
New Jersey State Teachers College	
Newark	1
Montclair	3
Princeton Theological Seminary	2
Rutgers University, The State University of New Jersey	15
Seaton Hall University	2
Total	24
New Mexico	
Eastern New Mexico University	1
New Mexico Western College	2
University of New Mexico	2
Unclassifiable by state	1
Total	6
New York	
Alfred University	1
Bard College	1
Brooklyn College	6
Canisius College	1
City College of the City of New York	18
Clarkson School of Technology	1
Cologate University	1
College of New Rochelle	1
Columbia University	116
Cornell University	7
Fordham University	8
Hunter College of the City of New York	3
Manhattan School of Music	2
Maryknoll Seminary	1
New School for Social Research	2
New York University	58
Pace College	1
Pratt Institute	1
Queens College of the City of New York	1
St. John's University	2

TABLE 3 - INSTITUTIONS GRANTING MASTER'S DEGREE TO THE RESPONDENTS (Continued)

Institution	Number
St. Lawrence University	2
College for Teachers at Albany	10
College for Teachers at Buffalo	2
Teachers College at Brockport	2
Teachers College at Fredonia	2
Teachers College at Geneseo	1
Syracuse University	10
Union College and University	3
University of Buffalo	4
University of Rochester	5
U. S. Military Academy	1
Yeshian University	6
Unclassifiable by state	4
Total	284
North Carolina	
North Carolina State	1
Appalachian State Teachers College	4
Duke University	8
East Carolina College	4
University of North Carolina	
At Chapel Hill	20
At Raleigh	2
At Greensboro	1
Western Carolina College	3
Total	43
North Dakota	
State Teachers College Dickinson	1
University of North Dakota	4
Total	5
Ohio	
Bowling Green State University	7
Capital University	1
John Carroll University	1
Kent State University	13
Miami University	5
Notre Dame College	1
Oberlin College	1
Ohio State University	33
Ohio University	13
University of Akron	1
University of Toledo	4
Western Reserve University	17
Wittenberg College	1
Xavier University	2
Unclassifiable by state	1
Total	101
Oklahoma	
Oklahoma State	12
Phillips University	1
Southwestern State College	1
University of Oklahoma	17
University of Tulsa	3
Total	34
Oregon	
Lewis and Clark College	1
Oregon College of Education	1
Oregon State College	9
University of Oregon	19
University of Portland	1
Williamsette University	2
Total	33
Pennsylvania	
Bucknell University	4
Duquesne University	1
Immaculata College	1
Lehigh University	3
Pennsylvania State University	26
Seton Hill College	1
State Teachers College Indiana	2
Temple University	23
University of Pennsylvania	14
University of Pittsburgh	30
Villanova University	2
Westminister College	7
Total	114
Rhode Island	
Brown University	1
Providence College	3
University of Rhode Island	1
Total	5
South Carolina	
Furman University	2
University of South Carolina	5
Total	7
South Dakota	
Northern State Teachers College	2
South Dakota State A. & M.	1
University of South Dakota	4
Unclassifiable by state	1
Total	8

TABLE 3 - INSTITUTIONS GRANTING MASTER'S DEGREE TO THE RESPONDENTS (Continued)

Institution	Number
Tennessee	
East Tennessee State College	1
George Peabody College for Teachers	29
Memphis State University	5
Middle Tennessee State College	2
Searritt College for Christian Workers	2
Tennessee Agricultural & Mechanical State University	1
University of Tennessee	7
Vanderbilt University	1
Total	48
Texas	
Abilene Christian College	3
Baylor University	9
Butler College	1
East Texas State College	8
Hardin-Simmons University	2
North Texas State University	14
Sam Houston State Teachers College	4
Southern Methodist University	7
Southwest Texas State College	2
Southwestern Baptist Theological Seminary	1
Southwestern Bible Institute	1
Texas A. & M.	
College Station	4
Prairie View	1
Texas Christian University	1
Texas College of Arts & Industry	1
Texas Women's University	2
Texas Theological College	8
Trinity University	3
University of Houston	6
University of Texas	10
West Texas State University	1
Total	89
Utah	
Brigham Young University	11
University of Utah	21
Utah State University of Agriculture & Applied Science	3
Total	35
Vermont	
Middlebury College	1
Total	1
Virginia	
College of William & Mary	2
University of Virginia	9
Virginia Polytechnic Institute	1
Virginia State College	2
Total	14
Washington	
Central Washington State College	2
Gonzaga University	2
Seattle Pacific College	1
State College of Washington	2
University of Washington	5
Western Washington State College	7
Unclassifiable by state	1
Total	20
West Virginia	
Marshall University	1
West Virginia University	6
Unclassifiable by state	2
Total	9
Wyoming	
University of Wyoming	8
Total	8

TABLE 4 - YEAR OF RECEIPT OF BACHELOR'S DEGREE

Year	Number	Year	Number
1920-21	1	1942-43	78
1922-23	0	1944-45	54
1924-25	3	1946-47	122
1926-27	7	1948-49	307
1928-29	8	1950-51	353
1930-31	15	1952-53	269
1932-33	22	1954-55	189
1934-35	33	1956-57	191
1936-37	38	1958-59	108
1938-39	80	1960-61	27
1940-41	90	Unknown	72
		Total	2067

TABLE 5 - YEAR OF RECEIPT OF MASTER'S DEGREE

Year	Number	Year	Number
1920-21	0	1944-45	26
1922-23	0	1946-47	59
1924-25	2	1948-49	97
1926-27	0	1950-51	208
1928-29	0	1952-53	213
1930-31	5	1954-55	264
1932-33	4	1956-57	292
1934-35	5	1958-59	306
1936-37	11	1960-61	215
1938-39	13	1962-63	80
1940-41	27	Unknown	213
1942-43	27	Total	2067

TABLE 6 - STATE IN WHICH PRESENTLY EMPLOYED

State	Number	Percent	State	Number	Percent
Alabama	29	1.4	New Jersey	76	3.7
Arizona	25	1.2	New Mexico	11	0.5
Arkansas	14	0.7	New York	236	11.4
California	200	9.7	North Carolina	38	1.8
Colorado	31	1.5	North Dakota	15	0.7
Connecticut	17	0.8	Ohio	85	4.1
Delaware	10	0.5	Oklahoma	31	1.5
District of Columbia	21	1.0	Oregon	33	1.6
Florida	49	2.4	Pennsylvania	94	4.5
Georgia	41	2.0	Rhode Island	7	0.3
Idaho	8	0.4	South Carolina	12	0.6
Illinois	127	6.1	South Dakota	5	0.2
Indiana	79	3.8	Tennessee	28	1.4
Iowa	46	2.2	Texas	87	4.2
Kansas	31	1.5	Utah	27	1.3
Kentucky	23	1.1	Vermont	3	0.1
Louisiana	17	0.8	Virginia	25	1.2
Maine	0		Washington	34	1.6
Maryland	34	1.6	West Virginia	11.	0.5
Massachusetts	35	1.7	Wisconsin	39	1.9
Michigan	84	4.1	Wyoming	12	0.6
Minnesota	37	1.8	Alaska	0	
Mississippi	16	0.8	Canal Zone	0	
Missouri	38	1.8	Guam	0	
Montana	7	0.3	Hawaii	7	0.3
Nebraska	25	1.2	Puerto Rico	5	0.2
Nevada	10	0.5	Foreign	57	2.8
New Hampshire	3	0.1	No response	32	1.5

APPENDIX B

Questionnaire, Follow-up Letters, Coding Information

I QUESTIONNAIRE

INQUIRY INTO CONDITIONS AFFECTING PURSUIT OF THE DOCTORAL DEGREE IN THE FIELD OF EDUCATION

by

THE AMERICAN ASSOCIATION OF COLLEGES
FOR TEACHER EDUCATION

Pursuant to U.S. Office of Education Project S-240

GENERAL INFORMATION AND DIRECTIONS

The purposes of this questionnaire are to find out how you came to enter a doctoral program in education, the circumstances under which you accomplished your study, your reactions to your program, your professional employment, your present perceptions of professional goals, and some essential personal data. You are urged to be accurate and to add "other" responses whenever necessary, for your replies are to provide a basis for improving policies and programs of graduate training. Your responses will become part of a report which will neither identify individuals nor make comparisons between specific universities.

It will take approximately one hour to answer the questions. Your prompt reply is essential. As a recent graduate you are aware of the importance of complete qualitative and quantitative response. A self-addressed, stamped return envelope is enclosed for your convenience.

We believe that you will find this inquiry of real personal interest as you review your doctoral study.

Our grateful thanks for the time and thought you give.

Which degree did you receive?
1( ) Ed.D.
2( ) Ph.D.

12

12 When was your degree conferred?
1( ) January-February
2( ) March-April
3( ) May-June
4( ) July-August
5( ) September-October
6( ) November-December..................
(year)

13-16 By what institution? ....
What was your major field (administration, guidance, etc?)..................

A. CIRCUMSTANCES AND EVENTS LEADING TO DOCTORAL STUDY

Early Consideration

a. During what period of your life did you first consider working toward a doctoral degree? Please check (✓) one.

17 or 19
1( ) During high school
2( ) During undergraduate program
3( ) During post-bachelor's teaching
4( ) During other post-bachelor's work—specify ....
....

5( ) During master's program
6( ) During post-master's teaching
7( ) During post-master's graduate study
8( ) During other post-master's work--specify...............
....

b. During what period of your life did you first become interested in the field which was to be your specialization within the field of education? Please double check (✓✓) one of the responses above.

Personal Motivations

It is probably true that you entered the doctoral program because of a combination of motives, rather than because of one strong, simple motive. Listed below is a series of motives which in some cases may influence the decision to enter the doctoral program. Please indicate the relative degree of importance which each may have had in your decision to enter the program according to the following scales:

1 Highly important
2 Of considerable importance
3 Of some importance
4 Of little importance
5 Of no importance

Col. 21( ) Attraction of new kinds of positions
22( ) Desire to get away from the demands and complexity of predoctoral position
23( ) Desire to become a better practitioner of your profession
24( ) Fear of being "locked in" at predoctoral place of employment
25( ) Concern about the lack of status generally accorded your predoctoral position
26( ) Lack of complete sense of cultural satisfaction associated with predoctoral position
27( ) Fear of general ineffectiveness in predoctoral position
28( ) Desire for greater professional mobility
29( ) Appeal of enchanced prestige associated with the doctorate
30( ) Sense of inadequacy with your research abilities in your profession
31( ) Desire to achieve maximum development of your academic talents and abilities
32( ) Insecurity of position without the degree
33( ) The need to keep up-to-date in your field
34( ) Appeal of certain techniques, procedures, and skills recently developed in your professional area
35( ) Stimulation of university associations and atmosphere
36( ) Opportunity for greater self-fulfilment
37( ) Desire to aid in the growth of the profession as a whole or some phase of it
38( ) Attraction of higher salaries accompanying the doctorate
39( ) Desire to work with college-age students
40( ) A compelling sense of commitment to an institution or a cause
41( ) A certain fascination with the world of research and experimentation
42( ) Lack of self-satisfaction derivable from predoctoral position
43( ) A growing sense of inadequacy with predoctoral tools and skills
44( )Frustration associated with preprogram level of earnings
45( ) Concern over the possibility of becoming "stale" in predoctoral position
46( ) Feeling of nonacceptance in your profession
47( ) Dissatisfaction associated with predoctoral teaching level (i.e., elementary, high school, etc.)

48( ) Frustrations associated with previous place of employment

Influential Persons

a. What individuals were influential in your actual decision to enter the doctoral program? Please check (√) those who affected you particularly.

Col. 56( ) Professional colleague (s)
57( ) Spouse
58( ) Parents
59( ) Other relative (s)
60( ) Former professor (s)
61( ) Employer at that time
62-65( ) Other—specify ....
....

b. If one of these individuals was the most influential please double check (√√).

Material Factors

a. What financial or other material factors were available which may have been decisive in enabling you to enter a doctoral program? Please check (√) those factors which apply.

Col. 66( ) NSF Fellowship
67( ) NDEA Fellowship
68( ) Institutional fellowship
69( ) Other fellowship—specify...
....
....
70( ) Assistantship
71( ) Scholarship
72( ) Leave with pay
73( ) Gifts or inheritances
74( ) NDEA loan
75( ) Institutional loan (i.e., the university)
76( ) Bank or other financial agency loan
77( ) Loan from friends, family, etc.
78( ) Savings
79( ) Other—specify...............
....
....

b. If one of these factors was most significant, please double check (√√).

Factors Considered

a. What factors did you actually consider in deciding to attend the university at which you received your doctorate? Please check (√) those which apply and add others which were important to you.

Col. 12( ) Availability of housing
13( ) Opportunity for supplementary income provided by city
14( ) Proximity of the university
15( ) Similarity of departmental philosophy to personal values
16( ) Availability of assistantships, fellowships, etc.
17( ) Previous graduate study at this institution
18( ) Nature of initial interviews
19( ) Reputation of individual staff members
20( ) Reputation of the university
21( ) Reputation of the department
22( ) Attractiveness of the university setting
23( ) Availability of the particular kind of program required for personal goals
24-28( ) Other—specify ....
....
....
( ) Other—specify..............
....
....

b. Please double check (√√) the most significant consideration.

Delay of Entry

a. If in your case actual entry into the doctoral program had to be postponed for a significant period of time, indicate with a check (√) the particular reason (s).

Col. 29( ) No real postponement necessary
30( ) Lack of adequate finances

31( ) Demands of employment
32( ) Difficulty of making necessary family adjustments
33( ) Health reasons—individual
34( ) Health reasons—other member of family
35( ) Lack of "leave" policy at place of employment
36( ) Other—specify ....
....
....

b. If one reason stands out above the others, please indicate by a double check (√√).

B. PURSUIT OF THE DEGREE

How much time did you spend in various phases of the program? (Report total elapsed time, not time spent in concentrated study).

Col. 37 Time spent in entire doctoral program(include time spent on the first year of graduate work only if no master's degree was earned):
........months

38 Total time spent on course work:
........months

39 Total time spent on thesis:
........months

40 Total time spent on language requirements:
........months

41 Total time spent in residence:
........months (write "no" if you fulfilled no residence requirement

How was the doctoral program carried out? Check (√) the appropriate category.

42
1( ) Entirely as a full-time student
2( ) Mostly as a full-time student
3( ) Mostly as a part-time student
4( ) Entirely as a part-time student

43-51
a. If your program was carried out entirely as a part-time student, check (√) below the ways in which your work was undertaken.

Col. 43( ) Question inapplicable, mostly or entirely full time
44( ) Summers
45( ) Evenings
46( ) Part time—days
47( ) Off-campus centers
48( ) Correspondence
49-51( ) Other—specify ....
....
....

b. If one of the above categories is most descriptive of the way in which your program was undertaken, please double check (√√).

52 In what way or combination of ways was your residence requirement fulfilled?
52( ) No residence requirement
53( ) Summers
54( ) Evenings
55( ) Part time--days
56-58( ) Full time during regular academic sessions--specify number: .... quarters, semesters (underline one)

Note: If you were never in residence as a full-time student, omit the two following items and continue with the third.

How did you finance the period in residence?
a. Please check (√) your source (s) of income.

Col. 59( ) Scholarship, fellowship, or award
60( ) Assistantship or other position in the university
61( ) Leave with pay
62( ) G.I. Bill
63( ) Loans
64( ) Savings
65( ) Earnings of spouse
66( ) Teaching outside university
67( ) Other work outside university
68-69( ) Other—specify ....
....

b. Double check (√√) the one item which was your major source of income during residency.

What kind (s) of housing did you have while in residence?

a. Please check (√) the kind (s) of housing you used.
70( ) Residence hall
71( ) University apartments
72( ) Low-rent university housing (e.g., temporary buildings, etc.)
73( ) Rented apartment or room off campus
74( ) Trailer (owned)
75( ) Trailer (rented)
76( ) House (owned)
77( ) House (rented)
78( ) Housing rent-free for services
79-80( ) Other--specify ....
....

b. Double check (√√) the kind of housing used for the longest period of time.

In the items which follow, your judgments are sought about experiences common to most persons who have earned a doctorate. Please respond to each item by placing a check (√) at one of the points on the rating scale.

Col. 12 In interviews prior to beginning the doctoral program, how complete was the information given you on assistantships, course requirements, housing, loans, time required, etc.?
1( ) Extremely complete
2( ) Of considerable completeness
3( ) Moderately complete
4( ) Rather incomplete
5( ) Decidedly incomplete
6( ) Item inapplicable

13 How would you rate the policy of admission at your institution?
1( ) Highly selective
2( ) Rather selective
3( ) Somewhat selective
4( ) Rather unselective
5( ) Very unselective
6( ) Item inapplicable

14 In comparison to doctoral students in fields outside of education, how would your rate the general caliber of education doctoral students in your institution?
1( ) Clearly superior
2( ) Usually superior
3( ) About the same
4( ) Often inferior
5( ) Clearly inferior
6( ) Item inapplicable

15 In terms of appropriateness to your professional interests at the present time, the course work generally seems to have been:
1( ) Entirely inappropriate
2( ) Rather inappropriate
3( ) Moderately appropriate
4( ) Definitely appropriate
5( ) Extremely appropriate
6( ) Item inapplicable

16 In terms of the relative number of courses required in your major area within education and outside your major area, the proportion seemed to be characterized by:
1( ) Great overemphasis on the major area
2( ) Overemphasis on the major area
3( ) Proper balance
4( ) Overemphasis on courses outside the major area
5( ) Great overemphasis on courses outside the major area
6( ) Item inapplicable

17 What degree of freedom and self-direction was generally allowed by the classroom procedures encountered during course work?
1( ) Practically none
2( ) Very little
3( ) A moderate amount
4( ) A considerable amount
5( ) A great amount
6( ) Item inapplicable

18 In how many courses in your total program did you experience

instruction which you would describe as superior?
1( ) In nearly all courses
2( ) In most courses
3( ) In half the courses
4( ) In a minority of courses
5( ) In very few courses
6( ) Item inapplicable

19 Of the instruction which you would describe as superior, how much of it was in your major field as compared with other areas?
1( ) A very small proportion
2( ) A minor proportion
3( ) About half
4( ) A major proportion
5( ) Nearly all
6( ) Item inapplicable

20 If it was necessary for you to pass foreign language reading requirements, how do you rate the professional value of knowing how to read foreign languages?
1( ) Extremely valuable
2( ) Of considerable value
3( ) Moderately valuable
4( ) Of little value
5( ) Of no value
6( ) Item inapplicable

21 If you did not fulfill foreign language reading requirements, how would you rate the professional value of knowing how to read foreign languages?
1( ) Of no value
2( ) Of little value
3( ) Moderately valuable
4( ) Of considerable value
5( ) Extremely valuable
6( ) Item inapplicable

22 If it was necessary for you to pass a statistic requirement, how do you rate the professional value of this requirement?
1( ) Extremely valuable
2( ) Of considerable value
3( ) Moderately valuable
4( ) Of little value
5( ) Of no value
6( ) Item inapplicable

23 Apart from thatoccurring in scheduled courses and seminars, to what extent was interaction among students encouraged through an active program of informal seminars, professional organizations, social events, etc.?
1( ) To a very great extent
2( ) To considerable extent
3( ) To some extent
4( ) To a small extent
5( ) Not at all
6( ) Item inapplicable

24 In reference to the preceding item, how would you rate the value of such interaction to you personally?
1( ) Of no value
2( ) Of little value
3( ) Of some value
4( ) Of considerable value
5( ) Extremely valuable
6( ) Item inapplicable

25 Apart from that occurring in scheduled courses and seminars, to what extent was interaction between faculty and students encouraged?
1( ) To a very great extent
2( ) To considerable extent
3( ) To some extent
4( ) To a small extent
5( ) Not at all
6( ) Item inapplicable

26 In reference to the preceding item, how would you rate the value of such interaction to you personally?
1( ) Of no value
2( ) Of little value
3( ) Of some value
4( ) Of considerable value
5( ) Extremely valuable
6( ) Item inapplicable

27 To what extent was your assistantship, staff appointment, etc. while in residence relevant to your program objectives?
1( ) To a very great extent
2( ) To considerable extent
3( ) To some extent
4( ) To a small extent
5( ) Not at all
6( ) Item inapplicable

28 How would you rate the educational value of your appointment?
1( ) Of no value
2( ) Of little value
3( ) Of some value
4( ) Of considerable value
5( ) Extremely valuable
6( ) Item applicable

29 How useful was general advice and counseling on academic and professional matters?
1( ) Extremely useful
2( ) Of considerable usefulness
3( ) Moderately useful
4( ) Of little use
5( ) Useless
6( ) Item inapplicable

30 To what extent was there ongoing research in your field of interest at your institution?
1( ) To a very great extent
2( ) To considerable extent
3( ) To some extent
4( ) To a samll extent
5( ) Not at all
6( ) Item inapplicable

31 To what extent were there opportunities for doctoral students to participate in this research?
1( ) To a very great extent
2( ) To considerable extent
3( ) To some extent
4( ) To a small extent
5( ) Not at all
6( ) Item inapplicable

32 In terms of the relative emphasis of production of individuals competent in research as opposed to the production of competent college teachers, the program of your university seemed to be characterized by:
1( ) Great overemphasis on research
2( ) Overemphasis on research
3( ) Proper balance
4( ) Overemphasis on teaching
5( ) Great overemphasis on teaching
6( ) Item inapplicable

33 The doctoral dissertations at your university seemed to be perceived as more of a laborious exercise than a real intellectual experience eventuating in useful knowledge.
1( ) Agree strongly
2( ) Agree
3( ) No opinion or can't say
4( ) Disagree
5( ) Disagree strongly

34 What degree of freedom and self-direction was generally allowed in the development of the dissertation problem?
1( ) Practically none
2( ) Very little
3( ) A moderate amount
4( ) A considerable amount
5( ) A great amount
6( ) Item inapplicable

35 How adequate was the advice and guidance of your dissertation director?
1( ) Completely adequate
2( ) Highly adequate
3( ) Adequate
4( ) Rather inadequate
5( ) Completely inadequate
6( ) Item inapplicable

36 How would you rate the general helpfulness of your doctoral committee other than the thesis director in guiding your dissertation project?
1( ) Very helpful
2( ) Of considerable help
3( ) Moderately helpful
4( ) Of little help
5( ) Of no help
6( ) Item inapplicable

37 In your thesis work how would you rate the extent to which your department and/or surrounding schools cooperated in providing sources of data and opportunities for experimentation?
1( ) Extremely satisfactory
2( ) Highly satisfactory
3( ) Moderately satisfactory
4( ) Rather unsatisfactory
5( ) Completely unsatisfactory
6( ) Item inapplicable

38 How would you rate the adequacy of the university library for your thesis work?
1( ) Extremely unsatisfactory

2( ) Rather unsatisfactory
3( ) Moderately satisfactory
4( ) Highly satisfactory
5( ) Extremely satisfactory

39 In your thesis work how would you rate the extent to which the department made facilities available for compiling, tabulating, and computing data?
1( ) Extremely satisfactory
2( ) Highly satisfactory
3( ) Moderately satisfactory
4( ) Rather unsatisfactory
5( ) Extremely unsatisfactory
6( ) Item inapplicable

40 If you were starting your graduate work in education again and had your choice of any graduate school in the United States, how likely would you be to choose the same institution?
1( ) Extremely likely
2( ) Highly likely
3( ) Rather likely
4( ) Very unlikely
5( ) Item inapplicable

41-52
a. From the following list please check (√) those aspects of your doctoral program which contributed most to your professional development.
41( ) Course work
42( ) Independent reading
43( ) Dissertation work
44( ) Teaching assistantship
45( ) Research assistantship
46( ) Preparation for examinations
47( ) Interaction with major professor
48( ) Interaction with other faculty
49( ) Interaction with other students
50-52( ) Other--specify.............
....
....

b. If one aspect of your doctoral program stands out above the others, please indicate by a double check (√√).

Critical Periods

53 During your doctoral program did any critical period (s) occur which resulted in the need to temporarily discontimue your program?
1( ) Yes
2( ) No
If yes check (√) the items below which contributed as causal agents to this critical period.
Col. 54( ) Family problems
55( ) Academic pressures
56( ) Personal health
57( ) Financial problems
58( ) Work pressures
59-61( ) Other--specify ....
....
....

62 During the doctoral program did a critical period occur which nearly resulted in your discontimance and/or required emergency measures to present interruption?
1( ) Yes
2( ) No
If yes, double check (√√) the items above which contributed as causal agents to this critical period.

Individuals encouraging your study

a. Who were the individuals who provided encouragement to you throughout the doctoral program? Please check (√) those individuals whom you considered significant
63( ) Major professor
64( ) Other staff members
65( ) Acquaintances
66( ) Parents
67( ) Spouse
68( ) Other relatives
69( ) Former employer
70( ) Prospective employers
71-72( ) Other--specify ....
....
....

b. If one of these individuals was the most significant sourse of encouragement, please double check (√√).

Distracting Factors

12a. Were there any persistent or recurring factors which prevented wholehearted attention to doctoral study?
1( ) Yes
2( ) No
If yes, please check (√) those items which were distracting influences to you.
13( ) Inadequate financing
14( ) Housing problems
15( ) Family problems
16( ) Excessive demands on time devoted to noncourse duties
17( ) Personal Health
18( ) Academic pressures
19( ) Professional relationships
20( ) Other--specify ....
....
21-22( ) Other--specify...............
....

b. If one of the above factors was the most persistent source of distraction, please double check (√√).

C. PRESENT AND DESIRED FUTURE EMPLOYMENT

a. What is your present position?
Title and/or rank ....
....
Official name of organization or institution ....
....
City and state ....
....

b. By what kind of organization are you presently employed? Please check (√).
27
1( ) Small college, public or private
2( ) Private or denominational school
3( ) Large university
4( ) Public school
5( ) State or federal government agency
6( ) Private business—a profit-making insitution
7( ) Nonprofit organization or foundation
8( ) Self-employed or private
9( ) Other—specify ....
....

c. Financial status (earned income) Check the interval which describes your expected income from your professional work during the year comencing September 1, 1964. Include salary, consultant fees, royalties, and other income from your professional activities, but not income from investments and other sources.
28-29
01( ) Less than $3,000
02( ) $3,000 to $3,999
03( ) $4,000 to $4,999
04( ) $5,000 to $5,999
05( ) $6,000 to $6,999
06( ) $7,000 to $7,999
07( ) $8,000 to $8,999
08( ) $9,000 to $9,999
09( ) $10,000 to $12,499
10( ) $12,500 to $14,999
11( ) $15,000 to $19,999
12( ) $20,000 and over

d. In your opinion how much greater is your present yearly income as a result of having earned the doctorate?
30
0( ) None
1( ) Less than $500
2( ) $500 to $999
3( ) $1,000 to $1,499
4( ) $1,500 to $1,999
5( ) $2,000 to $2,499
6( ) $2,500 to $2,999
7( ) $3,000 to $3,999
8( ) $4,000 to $4,999
9( ) More than $5,000

e. What is the division of time devoted to various aspects of your present position? Indicate by means of approximate percentages the time devoted to each. The total should equal 100 percent

%

Col. 31( ) Administration
32( ) Supervision
33( ) Teaching and preparation
34( ) Research
35( ) Writing and other creative work
36( ) Counseling, advising, individual case work, etc.
37( ) Committee work at department, school, and university levels
38( ) Service to community, state, institution, professional organizations, etc.
39( ) Other work not specified above—describe ....
....
....

f. To what extent are you involved in the prepartion of teachers? Please check (✓) the appropriate categoty.

44
1( ) Not at all
2( ) To a limited extent
3( ) To some extent
4( ) To a large extent
5( ) Almost entirely

g. If you are employed by a college or university, with what level of student do you work? Please check (✓) the appropriate category.

45
1( ) Almost entirely with undergraduates
2( ) Mostly with undergraduates, some with graduates
3( ) About half of the time devoted to each group
4( ) Mostly with graduates, some with undergraduates
5( ) Almost entirely with graduates
6( ) Not employed by a college or university
7( ) Employed by a college or university but do not work directly with students

Desired Future Employment

Undoubtedly, the position you hold at present is somewhat different from the position to which you may ultimately aspire. Respond to the following questions in terms of the position you would sometime like to hold.

a. In what kind of organization would you like to be employed? Please check (✓) the appropriate category.

46
1( ) Small college, public or private
2( ) Private or denominational school
3( ) Large university
4( ) Public school
5( ) State or federal government agency
6( ) Private business—a profit making institution
7( ) Nonprofit organization or foundation
8( ) Self-employed or private practice
9( ) Other—specify ....
....
....

b. What would be the division of time devoted to various aspects of the position you would like to hold? Indicate by means of approximate percentages the time devoted to each. The total should equal 100 percent.

%

47( ) Administration
48( ) Supervision
49( ) Teaching and preparation
50( ) Research
51( ) Writing and other creative work
52( ) Counseling, advising, individual case work, etc.
53( ) Committee work at department, school, and university levels
54( ) Service to community, state, institution, professional organizations, etc.

55( ) Other work not specified--describe ....
....
....

c. What would be the extent of your involvement in preparation of teachers? Please check (✓) the appropriate category.

60
1( ) Not at all
2( ) To a limited extent
3( ) To some extent
4( ) To a large extent
5( ) Almost entirely

d. If you desire to be employed by a college or university, with what level of student would you work? Please check (✓).

61
1( ) Almost entirely with undergraduates
2( ) Mostly with undergraduates, some with graduates
3( ) About half of the time devoted to each group
4( ) Mostly with graduates, some with undergraduates
5( ) Almost entirely with graduates
6( ) Not employed by a college or university
7( ) Employed by a college or university but do not work directly with students

e. To what extent would it be possible to attain the kind of position toward which you aspire within the context of your present employing organization?

62
1( ) Highly possible
2( ) Quite possible
3( ) Possible but unlikely
4( ) Quite unlikely
5( ) Very unlikely

D. PERSONAL DATA

63
1( ) Male
2( ) Female
64-65 Age ....

66-67 Place of birth .... State,
.... or country if not in United States

68
1( ) Single
2( ) Married
3( ) Divorced
4( ) Other

69 Number of children ....
70 Education of spouse (highest degree or grade ....
....
71 Major academic field of spouse (if college graduate) ....
....
72 Major occupation of spouse during your doctoral program ....
....
73 What was the size of the community in which you were reared? Check (✓) only one. (If you have lived in two or more communities, check the one in which you lived for the longest period of time.)
1( ) Rural
2( ) Village (under 2,500)
3( ) Town (2,500-10,000)—a suburb
4( ) Town (2,500-10,000)--no suburb
5( ) Small city (10,000-100,000)--a suburb
6( ) Small city (10,000-100,000)--no suburb
7( ) Large city (over 100,000)
74 Father's occupation ....
....
75 Mother's occupation ....
....
76 Father's education (highest grade)
....
77 Mother's education (highest grade)
....

Secondary Education

a. School from which you were graduated ....
name of school
....
city state year of graduation

78 What was the size of your secondary school graduating class? Please check (✓).

1( ) 1-9
2( ) 10-19
3( ) 20-39
4( ) 40-59
5( ) 60-99
6( ) 100-199
7( ) 200-499
8( ) 500 and over

79 What type of secondary or high school did you attend? Please check (✓).

1( ) Public
2( ) Private, nondenominational
3( ) Private, denominational

College Background

From what other institution have you received degrees? Please list in chronological order.

Name of institution State Major area of study Degree received Year

....
....
....

Occupational Background

a. Please list in inverse chronological order the full-time positions held after beginning the doctoral program and prior to completion of the degree.

Title of position Name and location of institution, company, enterprise, etc. Years held 19__ to 19__

....
....
....

b. Please list the position held immediately prior to actual entry into the doctoral program.

Title of position Name and location of institution, company, enterprise, etc. Years held 19__ to 19__

....
....

Do you wish to be informed when this study is completed? 1( ) Yes 2( ) No

Name..
(last) (first) (middle)

Address...
(street) (city) (state) (zip code)

We are indeed grateful for the thoughtful attention that you have given this task. Would you please return this questionnaire in the enclosed envelope to:

Doctorate in Education Study
Attn: Dr. Laurence D. Brown
Box E
Indiana University
Bloomington, Indiana 47405

Additional Comments:

II FOLLOW-UP LETTERS

Dear Graduate:

As a part of the continuing program of research and investigation of the American Association of Colleges for Teacher Education, a critical inquiry into programs leading to the doctorate in the field of education is now being conducted. The study is being funded by the United States Office of Education (Project S-240). The principal investigator is Dr. Laurence D. Brown, of the School of Education, Indiana University, Bloomington, Indiana.

The enclosed questionnaire is being sent to each of the more than 1800 persons who were awarded doctors degrees in the field of education during the year ending September 1, 1964. As a member of this group you can render significant service to your profession by taking part in the study. Our aims are improved programs in graduate education and improved educational leadership. We need your honest, thoughtful reactions to your own program of studies.

It is quite possible that you would be reluctant to express some of your opinions to a member of the faculty under which you studied. We would like you to consider this inquiry an opportunity to express your frank reactions regarding your doctoral program to an agency which is not only interested and concerned, but is also in a position to be of some influence in the profession. You can be assured that the data will be kept confidential. Individual data will not be given to the parent institution or to any other institution. Only completely honest, candid answers will be of real value in this study.

Most of the questions on the enclosed instrument can be answered by the use of a check mark or a few words. As time is an important factor in completing the study, please complete and return the questionnaire within the next week. A stamped and addressed envelope is enclosed for your reply. When the study is completed, participants will receive a summary of the findings.

Please accept our sincere thanks for your prompt and kind cooperation.

Cordially yours,

Edward C. Pomeroy
Executive Secretary

Enclosures

December 14, 1964

Dear Study Participant:

As of the above date, we have not received the questionnaire that was recently mailed to you as part of the study of the doctorate in education being conducted by the American Association of Colleges for Teacher Education. We are aware that your time is limited and that the special demands of your work may have presented you from filling out the questionnaire at the present time. However, we would like to impress upon you the importance of your response in the current investigation of the doctorate in education. As you well know, the adequacy of a survey study is largely dependent upon a large percentage of returns. Thus far the returns have been good, but they are far short of what is needed.

Perhaps your response is already in the mail. If not, won't you take the time now to complete and return the questionnaire before the Christmas holidays? Your cooperation will be greatly appreciated.

Cordially yours,

Laurence D. Brown
Principal Investigator
Doctorate in Education Study
Box E
Indiana University
Bloomington, Indiana

January 9, 1965

Dear Study Participant:

Returns from the follow-up study of the doctorate of education in the United States have been very encouraging. A beginning of the tabulation of data shows a wealth of information which should be of significant value in evaluating and ascertaining trends in this important segment of American education.

Although a large percentage of responses have now been received, we have not received a completed questionnaire from you. Recognizing that mail sometimes gets "lost in the heap" and sometimes mislaid, we are enclosing a second questionnaire for your use.

If the completion of the questionnaire has found its way to "the neglected" part of your activities, won't you activate it and put it in your "do it now" pile so that the data will come to us in a few days?

The filling out of the questionnaire is not a lengthy task. In most cases it will require less than an hour. It is your personal effort and investment in a more meaningful and effective graduate program in the field of education. As one who has long since learned personally the importance of gathering accurate data, I hope that you will give this matter your immediate attention.

Cordially,

Laurence D. Brown
Doctorate in Education Study
Box E
Indiana University
Bloomington, Indiana

January 23, 1965

Dear Study Participant:

The response to the questionnaire recently sent out to all doctoral graduates in the field of education has been encouraging. However, the importance of maximizing the number of responses cannot be overemphasized. The potential value of this study would be drastically reduced if the response is inadequate.

In the very near future we will begin the tabulation of data. If perchance, your response has been postponed, waylaid, or just simply forgotten, we are sending this brief final reminder. Won't you take time to complete it and put it in the mail? Thank you for your response.

Cordially yours,

Laurence D. Brown
Doctorate in Education Study
Box E
Indiana University
Bloomington, Indiana

III CODING INFORMATION

A. Major Producing Institutions

A. Major Producing Institutions

Institution	Number
Colorado State	77
Columbia University	217
George Peabody College for Teachers	40
Harvard University	45
Indiana University	92
Michigan State University	64
New York University	117
Ohio State University	56
Pennsylvania State University	51
Stanford University	45
University of California--Berkley	60
University of California--Los Angeles	45
University of Chicago	40
University of Illinois	52
University of Michigan	52
University of Minnesota	56
University of Missouri	42
University of Nebraska	42
University of Southern California	68
University of Texas	40
University of Wisconsin	44